BM-810

SERVICE MANUAL

AEP Model
UK Model

Model Name Using Similar Mechanism	BM-820
Tape Transport Mechanism Type	MB-810-58

SPECIFICATIONS

Tape (MICROCASSETTE)™
Track system 4-track 2-channel monaural
Tape speed 2.4 cm/sec., 1.2 cm/sec.
Tape speed control
−20% to +50%
Fast winding time
Approx. 1 min. 50 sec. (at 2.4 cm/sec.)
with Sony Microcassette MC-60BM
Frequency response
200–6,000 Hz (at 2.4 cm/sec.)
200–4,000 Hz (at 1.2 cm/sec.)
Speaker 6.6 cm (2⅝ inches) dia.
Power output 300 mW
Output EARPHONE: minijack, for an 8-ohm earphone or load impedance 10 kilohms or higher
Power requirements
European model: 220 V AC (or 240 V AC, adjustable by authorized Sony personnel), 50 Hz
The United Kingdom model: 240 V AC, 50 Hz
Power consumption
15 W
Dimensions Approx. 160×63×260 mm (w/h/d) (6⅓×2½×10¼ inches) not incl. projecting parts and controls
Weight Approx. 2 kg (4 lb 7 oz)
Supplied accessories
Microcassette (1)
Microphone cradle (1 set)

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY SHADING AND MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

MICROFILM

MICRO DICTATOR/TRANSCRIBER

SONY®

TC

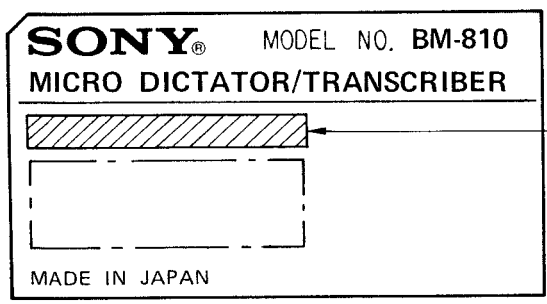
FEATURES

The Sony BM-810 micro dictator/transcriber is a compact, desk-top unit which can be used for both dictating and transcribing.

- Digital tape counter has tape motion and alarm indicators.
- Auto backspace function makes transcribing easy by reviewing the last few recorded words each time listening is resumed.
- Built-in erasing function rapidly erases tapes.
- Auto-stop function quickly locates instructions and documents.
- Adjustable tape speed and tone control.
- Three alarms (End-of-tape, No-cassette, and Auto stop) alert you.

MODEL IDENTIFICATION

– Specification Label –

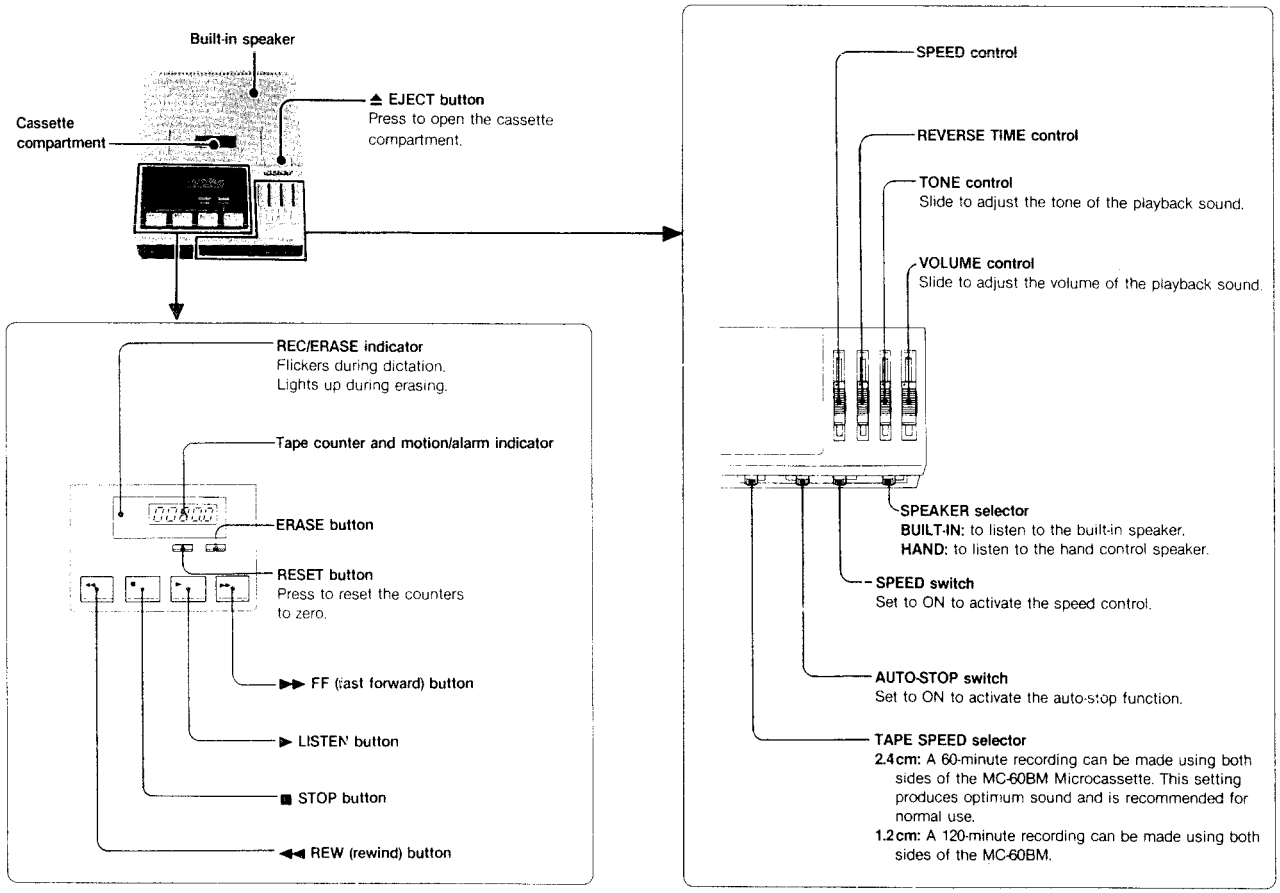


AEP model: 220 V ~ 50/60 Hz 15 W
UK model: 240 V ~ 50 Hz 15 W

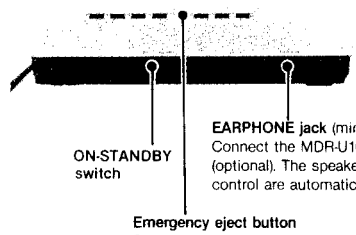
TABLE OF CONTENTS

Section	*Title*	*Page*
	Specifications	1
	Features	2
	Model Identification	2
	Location and Function of Controls	3
1.	**ADJUSTMENTS**	
1-1.	Mechanical Adjustments	4
1-2.	Electrical Adjustments	6
2.	**DIAGRAMS**	
2-1.	Mounting Diagram	9
2-2.	Schemaitc Diagram	13
3.	**EXPLODED VIEWS AND PARTS LIST**	19
4.	**ELECTRICAL PARTS LIST**	23
	Troubleshooting	28

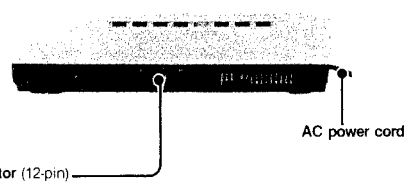
LOCATION AND FUNCTION OF CONTROLS


Built-in speaker
Cassette compartment
⏏ EJECT button
Press to open the cassette compartment.
REC/ERASE indicator
Flickers during dictation.
Lights up during erasing.
Tape counter and motion/alarm indicator
ERASE button
RESET button
Press to reset the counters to zero.
▶▶ FF (fast forward) button
▶ LISTEN button
■ STOP button
◀◀ REW (rewind) button
SPEED control
REVERSE TIME control
TONE control
Slide to adjust the tone of the playback sound.
VOLUME control
Slide to adjust the volume of the playback sound.
SPEAKER selector
BUILT-IN: to listen to the built-in speaker.
HAND: to listen to the hand control speaker.
SPEED switch
Set to ON to activate the speed control.
AUTO-STOP switch
Set to ON to activate the auto-stop function.
TAPE SPEED selector
2.4cm: A 60-minute recording can be made using both sides of the MC-60BM Microcassette. This setting produces optimum sound and is recommended for normal use.
1.2cm: A 120-minute recording can be made using both sides of the MC-60BM.

Left side


ON-STANDBY switch
EARPHONE jack (minijack)
Connect the MDR-U10M, DE-35 or DE-36 earphone (optional). The speakers on both the unit and the hand control are automatically disconnected.
Emergency eject button
Press with a pointed object to eject the cassette when the AC power cord is unplugged or in case of power failure. Do not use this button during normal use.
When this button is pressed with a finger, only the compartment lid opens, but the cassette does not eject. Use a pencil to press the button far enough to also eject the cassette.

Right side


AC power cord
Control unit connector (12-pin)
Connect the HU-70 hand control unit (optional) to use the unit as a dictator, or connect the FS-75 foot control unit (optional) to use the unit as a transcriber.

ALARM SYSTEM

A continuous alarm sounds and indicator appears in the following situations.

Unit	Function	Situation and indicator			
		No cassette, or the cassette tabs have been removed. [E]	The end/beginning of the tape. [E]	The auto-stop function activates. [/]	Electronic indexing have been recorded. [/]
Main unit	REW		●	●	
	LISTEN		●		
	FF		●	●	
	ERASE	●	●		
Hand control	DICT	●	●		
	LISTEN		●		
	B SPACE		●	●	
	FWD SPACE		●	●	
	LTR	●	●		●*
	SEC	●	●		●*
Foot control	Listen		●		
	Backspace		●	●	
	Forward space		●	●	

*Only / indicator appears but there is no alarm sound.

When the tape reaches its end or beginning, the unit automatically shuts off.

To stop the alarm sound
When you use the main unit, the alarm stops automatically at the end or beginning of the tape.
However, when using the hand control or foot control, release it or set it to the stop position to stop the alarm.

SECTION 1
ADJUSTMENTS

PRECAUTION

1. Clean the following parts with a denatured-alcohol-moistened swab:

   record/playback head — pinch roller
   erase head — rubber belts
   capstan — idlers

2. Demagnetize the record/playback head with a head demagnetizer. (Do not bring the head demagnetizer close to the erase head.)
3. Do not use a magnetized screwdriver for the adjustments.
4. After the adjustments, apply suitable locking compound to the parts adjusted.
5. The adjustments should be performed with the rated power supply voltage unless otherwise noted.

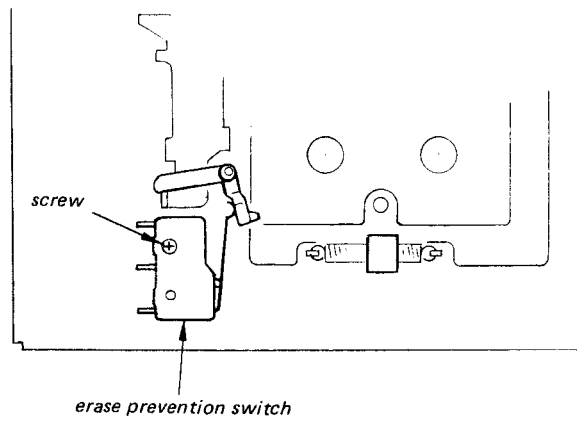
1-1. MECHANICAL ADJUSTMENTS

Torque Measurement

Mode	Torque meter	Meter reading
FWD	CQ-102M	8 to 13 g·cm (0.11 to 0.18 oz·inch)
FF/REW	CQ-201MA	40 to 75 g·cm (0.56 to 1.05 oz·inch)
Back Tension	CQ-102M	1 to 3 g·cm (0.01 to 0.04 oz·inch)
Tape Pulling Force	CQ-403M	50 g·cm or more (0.69 oz·inch or more)

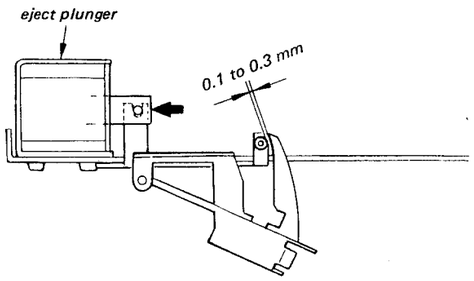
Erase Prevention Switch Position

Adjust the screw for following position.
When inserting the cassette with the tab . . . . . ON
When inserting the cassette without the tab . . . OFF



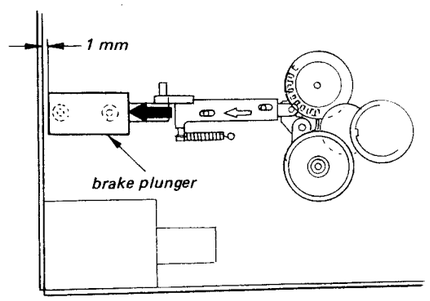
Eject Plunger Position Adjustment

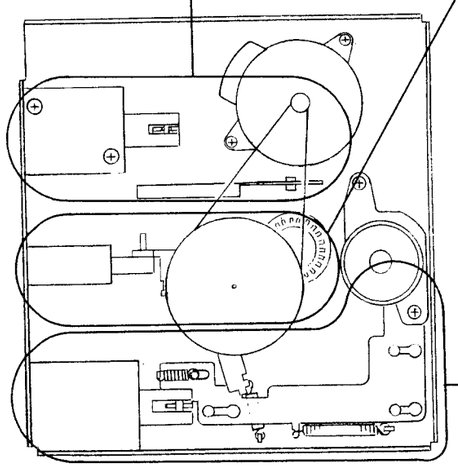
1. Open the cassett lid.
2. When pulling the plunger by hand, adjust the screw so that clearance between eject lever and the colo is 0.1 to 0.3 mm.



Brake Plunger Position Adjustment

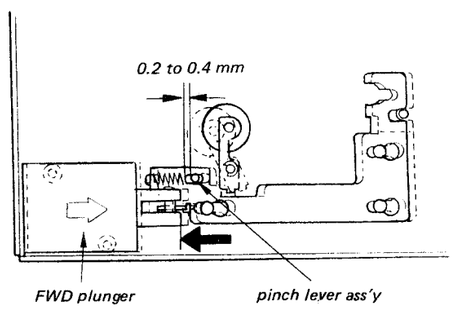
Adjust the screw so that clearance between the plunger and the chassis is approximately 1 mm as illustrated.





FWD Plunger Position Adjustment

1. When pulling FWD plunger fully by hand, adjust the plunger installing screw so that clearance between FWD lever assy and FWD lever is 0.2 to 0.4 mm.
2. After adjustment, confirm that the pinch roller preses against the capstan in FWD mode.



1-2. ELECTRICAL ADJUSTMENTS

1. Demagnetize the record/playback head with a head demagnetizer. (Do not bring the head demagnetizer close to the erase head.)
2. Do not use a magnetized screwdriver for the adjustments.
3. After the adjustments, apply suitable locking compound to the parts adjusted.
4. The adjustments should be performed with the rated power supply voltage unless otherwise noted.
5. The adjustments should be performed in the order given in this service manual. (As a general rule, playback circuit adjustment should be completed before performing recording circuit adjustment.)

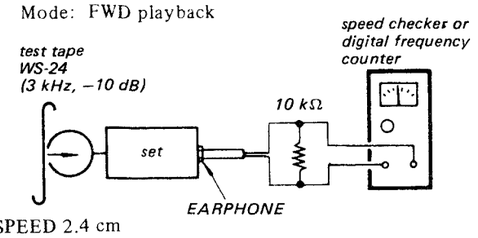
- Switches and controls should be set as follows unless otherwise specified.

STANDBY switch:	ON
SPEED switch:	OFF
AUTO STOP switch:	ON
SPEAKER switch:	BUILT IN
TONE CONTROL:	H MAX
SPEED CONTROL:	0
TAPE SPEED switch:	2.4

Tape Speed Adjustment

Procedure:

Mode: FWD playback



SPEED 2.4 cm

1. Adjust RV602 for specified reading on speed checker of digital frequency counter.

Specification:

Speed checker	Digital frequency counter
–0.5 to +0.5%	3,000 to 3,030 Hz

SPEED 1.2 cm

2. Put TAPE SPEED switch 1.2 cm and adjust RV603 for specified reading on speed checker or digital frequency counter.

Specification:

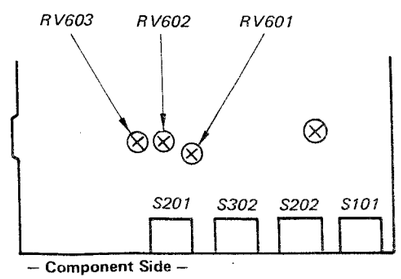
Speed checker	Digital frequency counter
–0.5 to +0.5%	1,512 to 1,528 Hz

3. Then put SPEED switch ON and TAPE SPEED switch 2.4 cm. Slide SPEED VOLUME knob to MAX and adjust RV601 for specified reading on speed checker or digital frequency counter.

Specification:

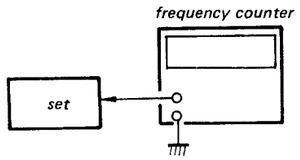
Speed checker	Digital frequency counter
–0.5 to +0.5%	4,750 to 4,850 Hz

Adjustment Location: main board



FF/REW Speed Adjustment

Procedure:

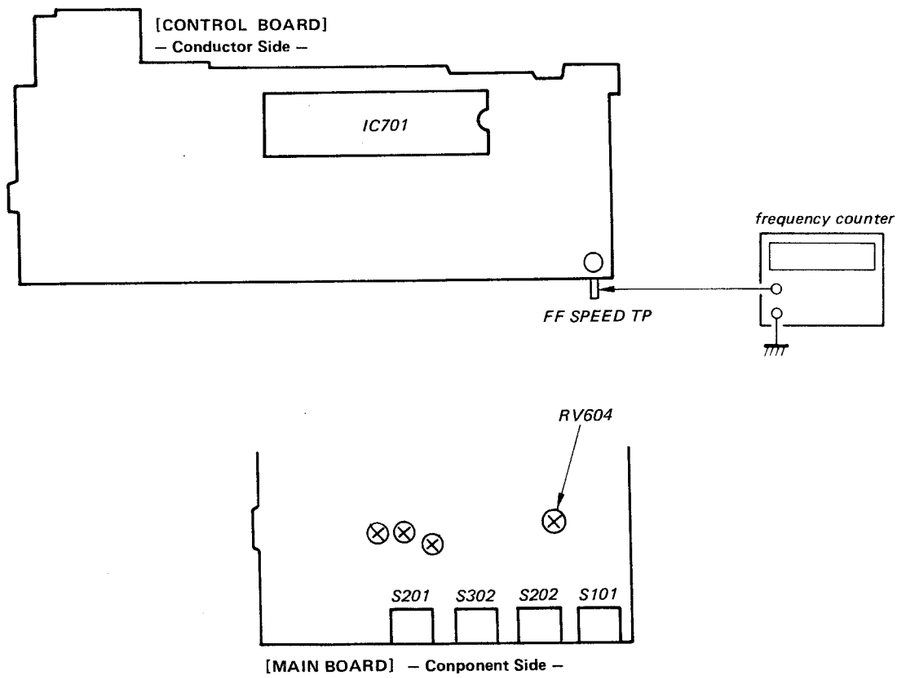


1. Insert a cassette tape.
2. Put TAPE SPEED switch 2.4 cm.
3. Connect the speed checker or digital frequency counter to test point.
4. Put FF switch on.
5. Adjust RV604 for specified reading on speed checker or digital frequency counter.
6. Put the set into REW mode and confirm specified reading on frequency counter.

Specification:

Speed	frequency counter
2.4 cm	165 ±5 Hz

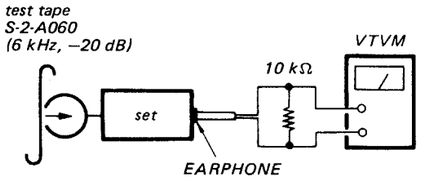
Adjustment Location: main/system control board



Record/Playback Head Adjustment

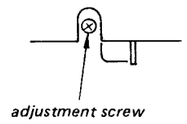
Procedure:

1. Mode: LISTEN



2. Turn the adjustment screw and check output peaks.
3. After the adjustments, apply suitable locking compound to the parts adjusted.

Adjustment Location:

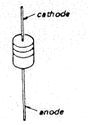


SECTION 2
DIAGRAMS

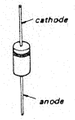
2-1. MOUNTING DIAGRAM

• Semiconductor Lead Layouts

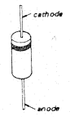
1SS119



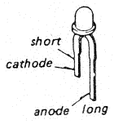
10E-2
RD20ES-B2



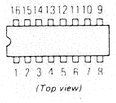
IT22A



SR615D



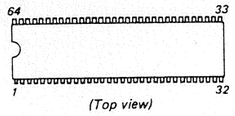
BA618
TD62104P



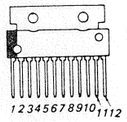
BA526

LA5524
NJM4560D-D
μPC4558C

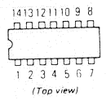
MB88521-168M



NJM7806A
μPC78M12H



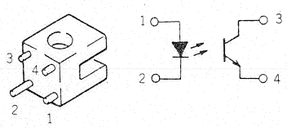
μPD4001BC
μPD4066BC



2SB1013
2SC1345
2SD1387
2SD1388

2SC6345SP
2SD1012
DTA114ES
DTA124ES
DTC114ES
DTC124ES

PLI-13

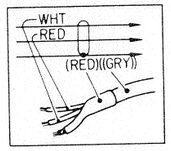


• SEMICONDUCTOR LOCATION

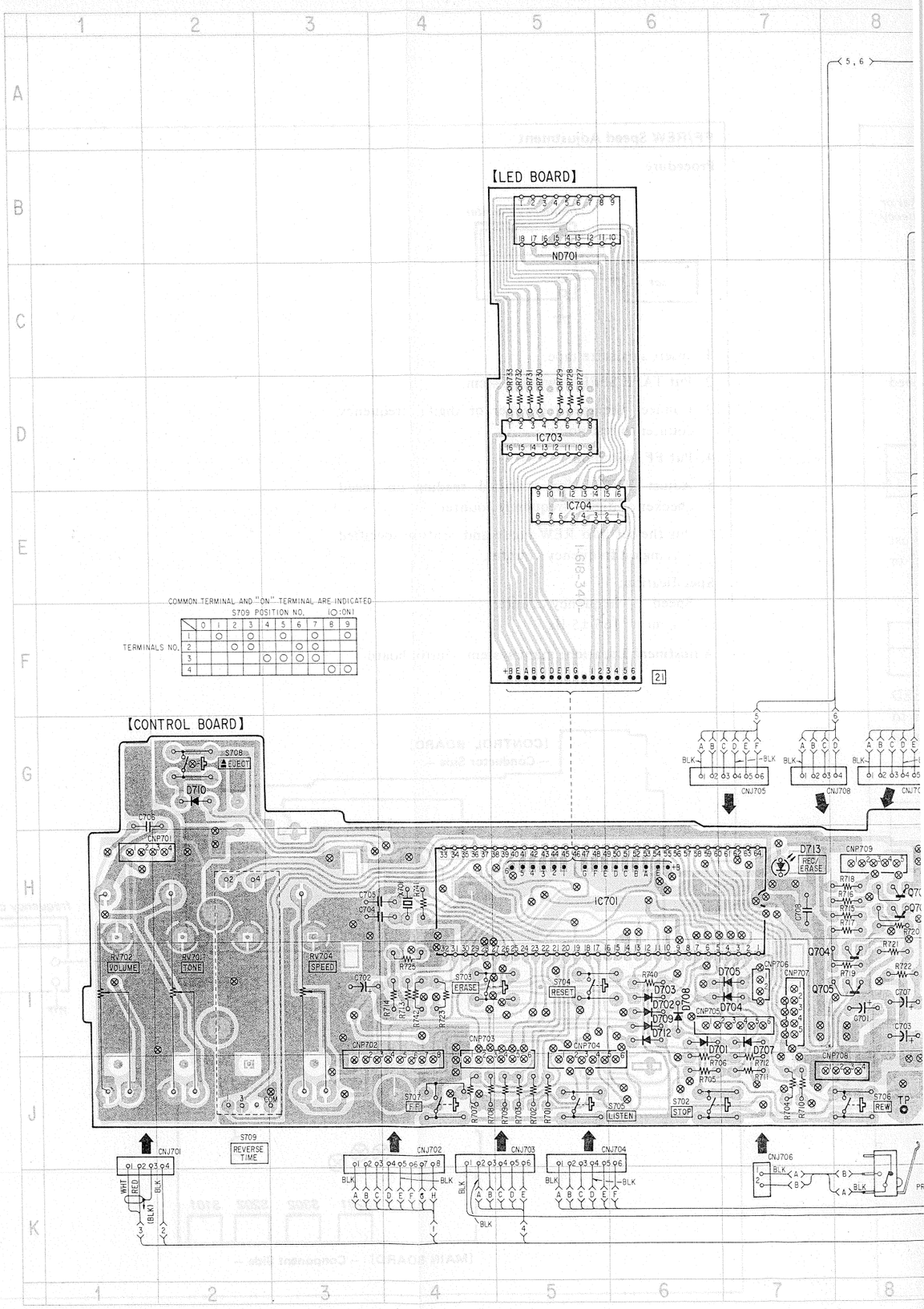
Ref. No.	Location	Ref. No.	Location
D101	G-19	Q101	D-18
D201	E-17	Q102	E-19
D202	D-16	Q103	E-19
D203	D-16	Q104	F-18
D204	E-17	Q105	F-18
D205	D-17	Q201	E-18
D206	E-17	Q202	F-18
D207	F-17	Q203	E-18
D208	H-19	Q204	E-16
D301	C-17	Q205	D-16
D302	C-17	Q206	E-16
D303	C-18	Q302	B-18
D401	D-15	Q303	B-18
D402	D-15	Q304	F-16
D403	F-14	Q305	F-16
D404	E-15	Q306	C-17
D405	E-15	Q401	E-15
D406	E-15	Q402	E-15
D407	C-15	Q403	E-15
D408	C-15	Q404	F-15
D409	B-16	Q405	E-15
D410	B-15	Q406	E-15
D411	B-16	Q408	D-15
D412	B-15	Q409	D-16
D413	D-15	Q410	D-14
D601	G-16	Q601	G-16
D701	I-6	Q602	G-16
D702	I-6	Q603	G-16
D703	I-6	Q604	G-18
D704	I-7	Q605	G-18
D705	I-7	Q606	F-15
D707	I-7	Q608	H-14
D708	I-6	Q609	G-14
D709	I-6	Q610	F-14
D710	G-2	Q611	G-14
D712	I-6	Q612	G-14
D713	H-7	Q613	G-14
		Q614	G-14
IC101	E-19	Q615	H-14
IC102	F-19	Q702	H-8
IC201	D-17	Q703	H-8
IC301	C-17	Q704	I-8
IC302	D-19	Q705	I-8
IC401	B-14		
IC402	C-14	PH901	E-9
IC601	H-17		
IC602	F-15		
IC701	H-5		
IC703	D-5		
IC704	E-5		

Note:

- Color code or sleeving over the end of the jacket.



- ○—— : parts extracted from the component side.
- ●—— : parts extracted from the conductor side.
- ■ : part mounted on the conductor side.
- ⊗ : Through hole.
- ▒▒ : component-side pattern.



【MAIN BOARD】

【POWER BOARD】

【PHOTO INTERRUPTER BOARD】

【I2P CONNECTOR BOARD】

PM903 SOLENOID (BRAKE)

PM902 SOLENOID (EJECT)

PM901 SOLENOID (FWD)

HE902 ERASE HEAD

HRP901 REC / PLAYBACK HEAD

M902 MOTOR (FF/REW)

M901 MOTOR (FWD)

SP901 SPEAKER

S901 ERASE PREVENTION

S101 SPEAKER HAND ⟵ BUILT IN

S202 SPEED ON ⟵ OFF

S302 AUTO-STOP ON ⟵ OFF

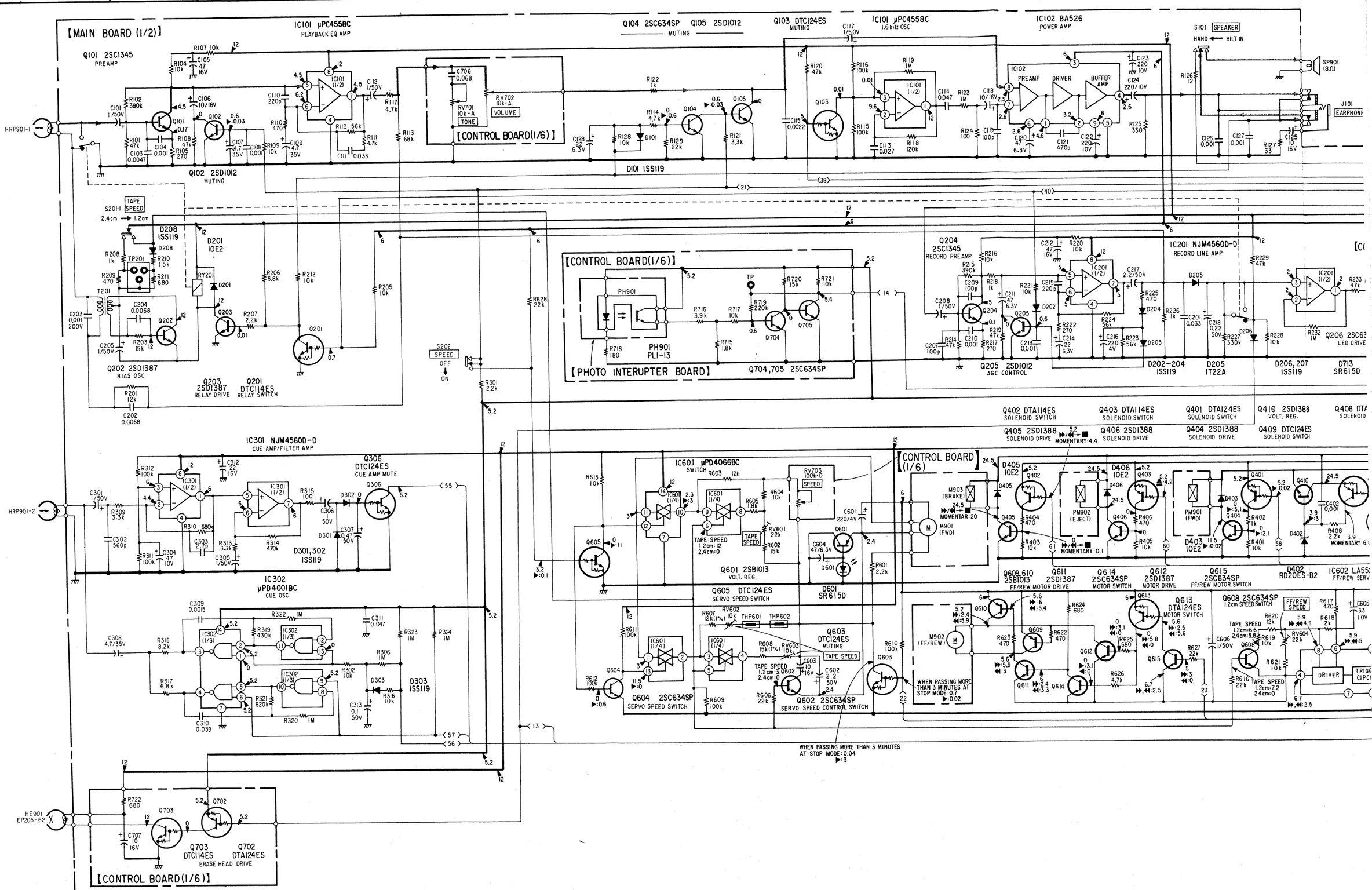
S201 TAPE SPEED 2.4cm ⟶ 1.2cm

S301 (POWER) ON ↑ STANDBY

T901 POWER

AC IN

JI01 EARPHONE


【MAIN BOARD (1/2)】
IC101 μPC4558C
PLAYBACK EQ AMP
Q101 2SC1345
PREAMP
Q102 2SD1012
MUTING
Q104 2SC634SP Q105 2SD1012
MUTING
Q103 DTC124ES
MUTING
IC101 μPC4558C
1.6kHz OSC
IC102 BA526
POWER AMP
PREAMP
DRIVER
BUFFER AMP
S101 SPEAKER
HAND ← BILT IN
SP901 (8Ω)
J101 EARPHONE
HRP901-1
D101 1SS119
【CONTROL BOARD(1/6)】
VOLUME
TONE
S201-1 TAPE SPEED
2.4cm → 1.2cm
D208 1SS119
D201 10E2
Q202 2SD1387
BIAS OSC
Q203 2SD1387
RELAY DRIVE
Q201 DTC114ES
RELAY SWITCH
【PHOTO INTERUPTER BOARD】
PH901
PH901 PLI-13
Q704,705 2SC634SP
S202 SPEED OFF ON
Q204 2SC1345
RECORD PREAMP
IC201 NJM4560D-D
RECORD LINE AMP
Q205 2SD1012
AGC CONTROL
D202-204 1SS119
D205 1T22A
D206,207 1SS119
D713 SR615D
Q206 2SC62
LED DRIVE
Q402 DTA114ES
SOLENOID SWITCH
Q403 DTA114ES
SOLENOID SWITCH
Q401 DTA124ES
SOLENOID SWITCH
Q410 2SD1388
VOLT. REG.
Q408 DTA
SOLENOID
Q405 2SD1388
SOLENOID DRIVE
MOMENTARY:4.4
Q406 2SD1388
SOLENOID DRIVE
Q404 2SD1388
SOLENOID DRIVE
Q409 DTC124ES
SOLENOID SWITCH
IC301 NJM4560D-D
CUE AMP/FILTER AMP
Q306 DTC124ES
CUE AMP MUTE
D301,302 1SS119
IC302 μPD4001BC
CUE OSC
D303 1SS119
HE901 EP205-62
Q703 DTC114ES
Q702 DTA124ES
ERASE HEAD DRIVE
【CONTROL BOARD(1/6)】
IC601 μPD4066BC
SWITCH
Q601 2SB1013
VOLT. REG.
Q605 DTC124ES
SERVO SPEED SWITCH
D601 SR615D
Q604 2SC634SP
SERVO SPEED SWITCH
Q602 2SC634SP
SERVO SPEED CONTROL SWITCH
Q603 DTC124ES
MUTING
【CONTROL BOARD (1/6)】
M903 (BRAKE)
M901 (FWD)
M902 (FF/REW)
PM902 (EJECT)
PM901 (FWD)
D405 10E2
D406 10E2
D403 10E2
D402 RD20ES-B2
Q609,610 2SB1013
FF/REW MOTOR DRIVE
Q611 2SD1387
Q614 2SC634SP
MOTOR SWITCH
Q612 2SD1387
MOTOR DRIVE
Q615 2SC634SP
FF/REW MOTOR SWITCH
IC602 LA55
FF/REW SERV
Q608 2SC634SP
1.2cm SPEED SWITCH
Q613 DTA124ES
MOTOR SWITCH
FF/REW SPEED
DRIVER
WHEN PASSING MORE THAN 3 MINUTES AT STOP MODE:0.7
WHEN PASSING MORE THAN 3 MINUTES AT STOP MODE:0.04

IC101 μPC4558C
1.6kHz OSC

IC102 BA526
POWER AMP

S101 SPEAKER
HAND ← BILT IN

SP901 (8Ω)

J101 EARPHONE

CNJ701
SP
DICT
LISTEN
+12V
BS
FS
MIC(+)
MIC(-)
PR
SEC
LTR
GND

【I2P CONNECTOR BOARD】

【CONTROL BOARD(1/6)】

【LED BOARD】

IC704 TD62104P
LCD DRIVE

ND701

IC703 BA618
LCD DRIVE

【MAIN BOARD(1/2)】

Q204 2SC1345
RECORD PRE AMP

IC201 NJM4560D-D
RECORD LINE AMP

【CONTROL BOARD(1/6)】

Q205 2SD1012
AGC CONTROL

D202-204 ISS119

D205 IT22A

D206,207 ISS119

D713 SR6I5D

Q206 2SC634SP
LED DRIVE

Q305 DTC114ES
REC CONTROL

Q304 2SC634SP
REC CONTROL

S709 REVERSE TIME

REVERSE TIME "0": 5.2

COM

PARTIAL REVERSE TIME SET UP DATA

IC701 MB88521-168M
SYSTEM CONTROL

COMMON TERMINAL AND "ON" TERMINAL ARE INDICATED

S709 POSITION NO. (O:ON)

TERMINALS NO.	0	1	2	3	4	5	6	7	8	9
1		O				O		O		O
2			O			O		O		O
3				O		O	O	O		
4					O				O	O

Q402 DTA114ES SOLENOID SWITCH
Q403 DTA114ES SOLENOID SWITCH
Q401 DTA124ES SOLENOID SWITCH
Q410 2SD1388 VOLT. REG
Q408 DTA124ES SOLENOID SWITCH
Q405 2SD1388 SOLENOID DRIVE
Q406 2SD1388 SOLENOID DRIVE
Q404 2SD1388 SOLENOID DRIVE
Q409 DTC124ES SOLENOID SWITCH
D408 10E2

【CONTROL BOARD (1/6)】

D405 10E2
D406 10E2
D403 10E2
D401 ISS119
D402 RD20ES-B2

M903 (BRAKE)
M901 (FWD)
M902 (FF/REW)
PM902 (EJECT)
PM901 (FWD)

Q609,610 2SB1013 FF/REW MOTOR DRIVE
Q611 2SD1387 FF/REW MOTOR DRIVE
Q614 2SC634SP MOTOR SWITCH
Q612 2SD1387 MOTOR DRIVE
Q615 2SC634SP FF/REW MOTOR SWITCH
Q613 DTA124ES MOTOR SWITCH
Q608 2SC634SP 1.2cm SPEED SWITCH
Q606 DTC124ES FF/REW MOTOR MUTE
Q603

IC602 LA5524 FF/REW SERVO

IC402 μPC78M12H VOLT. REG

IC401 NJM7806A VOLT. REG

Q303 DTC114ES POWER ON RESET

Q302 2SC634SP POWER ON RESET

S301 STANDBY ON

S201-2 TAPE SPEED 2.4cm → 1.2cm

S302 AUTO-STOP ON ← OFF

S704 RESET
S703 ERASE
S702 STOP
S708 EJECT
S707 FF
S706 REW
S705 LISTEN
S901 ERASE PREVENT

KEY DETECTION MATRIX

D701-705,707-710,712 ISS119

D704
D705

X701 6 MHz
C705 33p
C704 33p
C701 220/10V

【POWER BOARD】

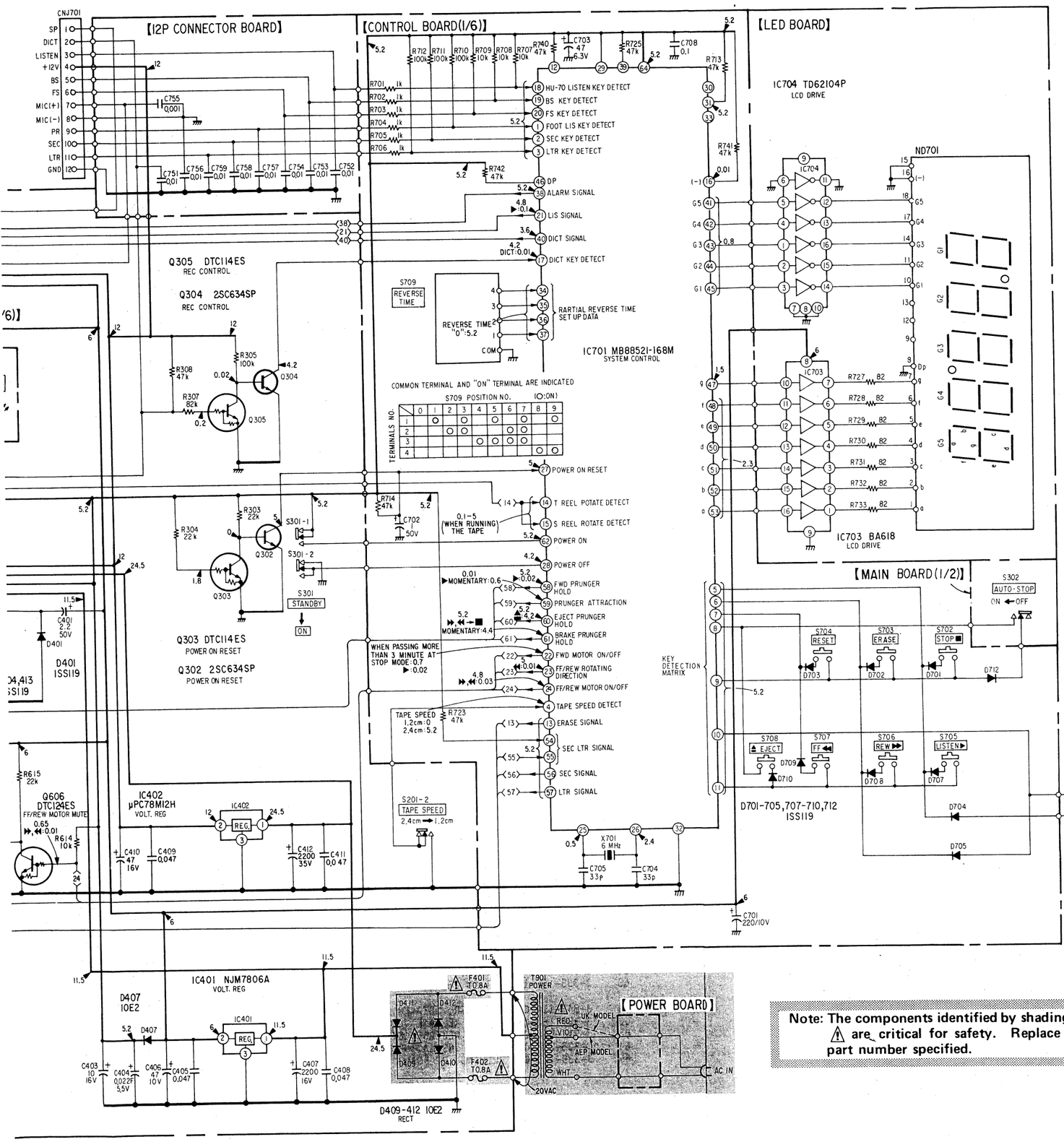
T901 POWER
RED
UK MODEL
AEP MODEL
WHT
220VAC
AC IN

F401 T0.8A
F402 T0.8A

D409-412 10E2 RECT

D411
D412
D409
D410

Note: The components identified by shading and mark
⚠ are critical for safety. Replace only with
part number specified.



Note:

- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and ¼ W or less unless otherwise specified.
- Switch

Ref. NO.	Switch	Position
S101	SPEAKER	
S201	TAPE SPEED	2.4 cm
S202	SPEED	OFF
S301	STANDBY	OFF
S302	AUTO-STOP	OFF
S702	STOP ■	—
S703	ERASE	—
S704	RESET	—
S705	LISTEN ▶	—
S706	REW ◀◀	—
S707	FF ▶▶	—
S708	EJECT ▲	—
S709	REVERSE TIME	—
S901	(ERASE PREVENTION)	OFF

- ▬▬ : B+ bus.
- ▭ : adjustment for repair.
- Voltages are dc with respect to ground unless otherwise noted.
- Readings are taken under no-signal conditions with a VOM (50 kΩ/V).
  no mark : STOP
  ▶ : LISTEN
  ▶▶ : FF
  ◀◀ : REW
  ● : REC
  ▲ : EJECT
- Voltage variations may be noted due to normal production tolerances.
- ⟿ : signal path (PLAYBACK)

Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

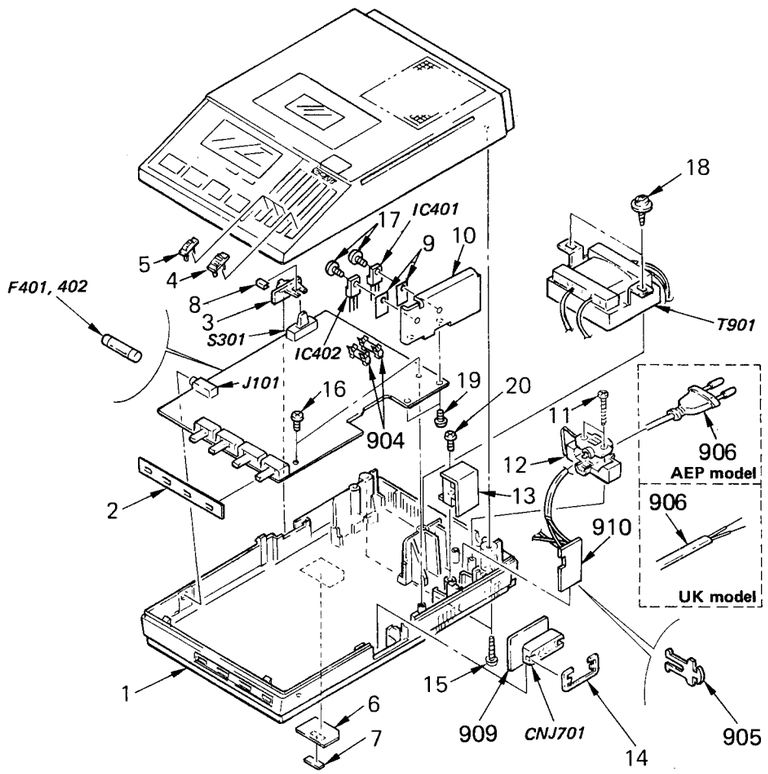
BM-810 BM-810

SECTION 3
EXPLODED VIEWS AND PARTS LIST

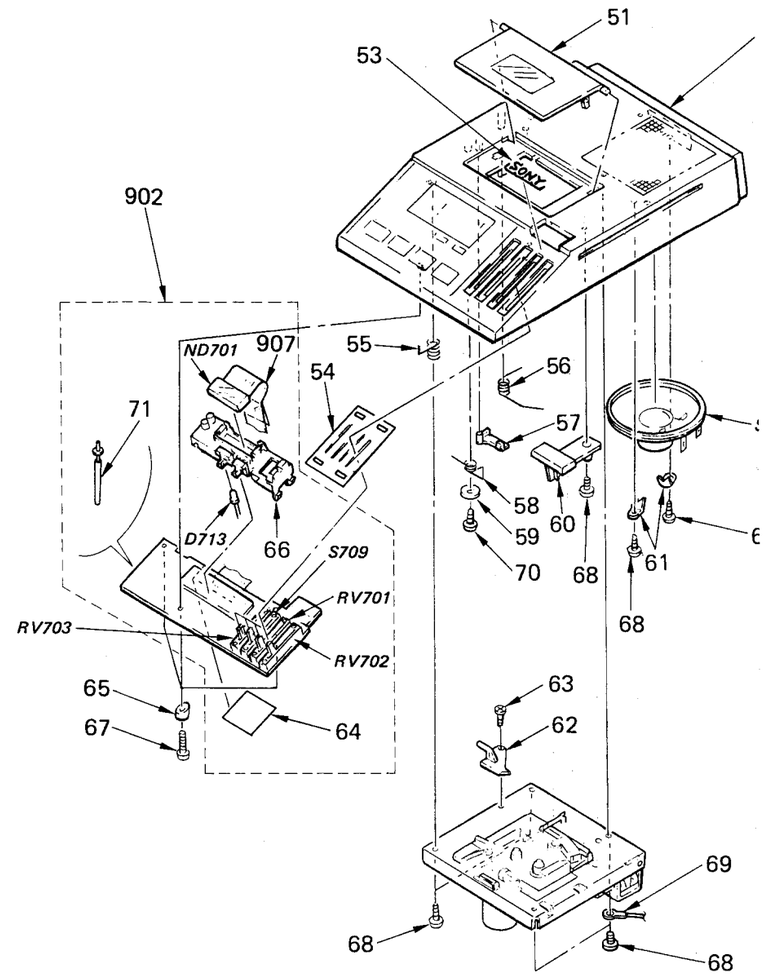
NOTE:
- The mechanical parts with no reference number in the exploded views are not supplied.
- Items marked " ★ " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The construction parts of an assembled part are indicated with a collation number in the remark column.

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

(1)



(2)

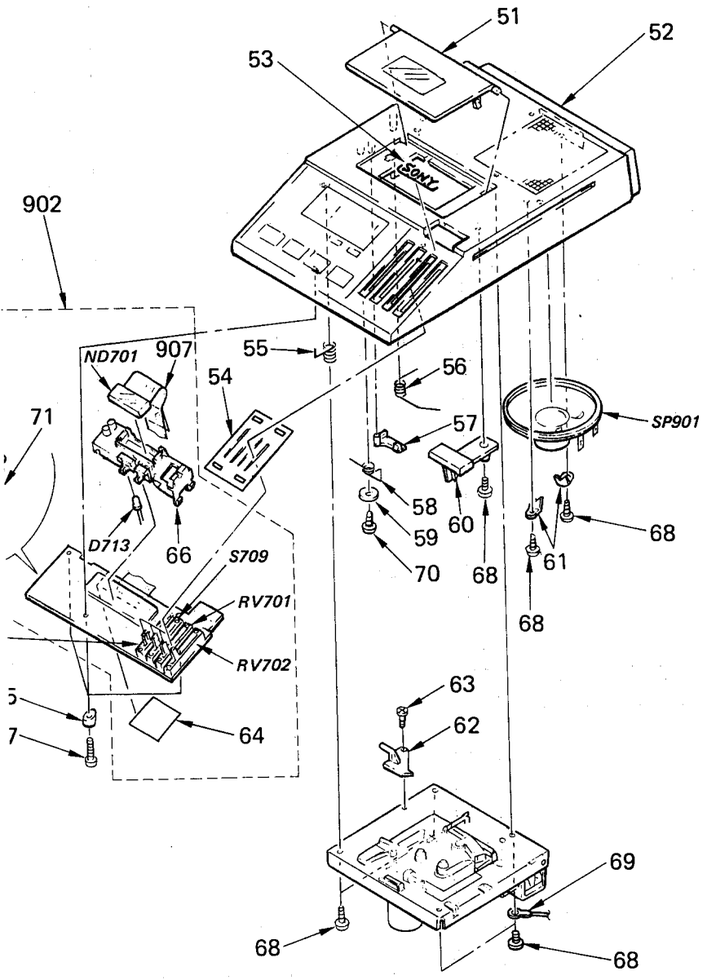


No.	Part No.	Description	Remarks
1	X-3335-129-1	LID ASSY, REAR	
2	3-831-441-XX	SHEET, BLIND, SW	
3	3-323-573-01	KNOB, POWER SWITCH	
4	3-335-185-01	KNOB (A)	
5	3-323-562-01	KNOB (B)	
6	*3-335-233-01	LABEL, MODEL NUMBER (AEP)	
7	*3-701-999-00	LABEL, SERIAL NUMBER	
8	3-559-407-01	CUSHION	
9	4-875-726-00	SHEET, INSULATING	
10	*3-335-228-01	HEAT SINK	
11	3-323-594-01	SCREW, TAPPING, (M2.6X20)	
12	3-556-081-00	RETAINER (B), CORD	
13	*3-335-231-01	COVER, POWER	
14	*3-323-566-01	BRACKET, 12P CONNECTOR	
15	7-685-648-79	SCREW +BTP 3X12 TYPE2 N-S	
16	7-685-133-19	SCREW +BTP 2.6X6 TYPE2 N-S	

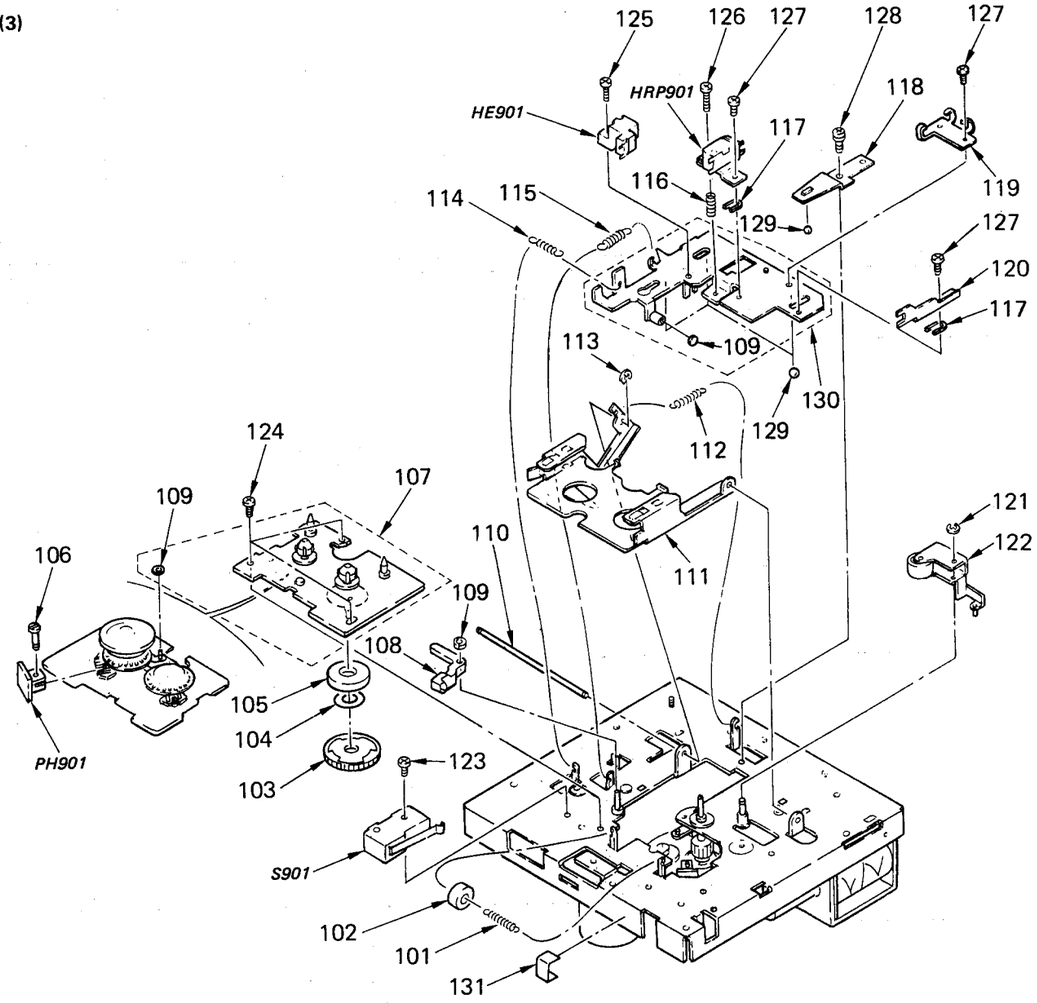
No.	Part No.	Description	Remarks
17	7-682-545-09	SCREW +B 3X4	
18	7-687-264-11	SCREW, TOTSU PTPWH 4X10, TYPE2	
19	7-621-775-20	SCREW +B 2.6X5	
20	7-685-134-19	SCREW +BTP 2.6X8 TYPE2 N-S	
904	*1-533-189-11	HOLDER, FUSE	
905	1-535-416-00	TERMINAL	
906	⚠1-534-777-21	(UK), CORD, POWER	
	⚠1-558-245-11	(AEP), CORD, POWER	
909	1-621-225-11	PC BOARD, 12P CONNECTOR	
CNJ701	*1-561-533-00	SOCKET, CONNECTOR 12P	
F401	⚠1-532-211-00	FUSE, TIME-LAG (0.8A	
F402	⚠1-532-215-00	FUSE, TIME-LAG (0.8A	
IC401	8-759-700-52	IC NJM7806A	
IC402	8-759-170-12	IC UPC78M12H	
J101	1-507-948-21	JACK	
T901	⚠1-448-871-11	TRANSFORMER, POWER	

No.	Part No.	Description	Remarks
51	X-3335-123-1	LID ASSY, CASSETTE	
52	X-3335-131-1	CABINET ASSY	53
53	*4-860-515-00	EMBLEM, SONY	
54	3-831-441-XX	CLOTH, BLIND, SW	
55	3-335-183-01	SPRING	
56	3-335-193-01	SPRING, CASSETTE	
57	*3-335-184-01	LEVER, LOCK	
58	3-335-190-01	SPRING	
59	*3-531-819-00	WASHER, STOPPER	
60	3-335-199-11	BUTTON, EJECT	
61	3-845-110-00	RETAINER, SPEAKER	
62	*3-335-182-01	LEVER, RELEASE	
63	3-316-886-00	SCREW, RELEASE LEVER (A)	
64	*3-335-235-01	SHEET, INSULATING	
65	3-335-186-01	BUSHING, PC BOARD	

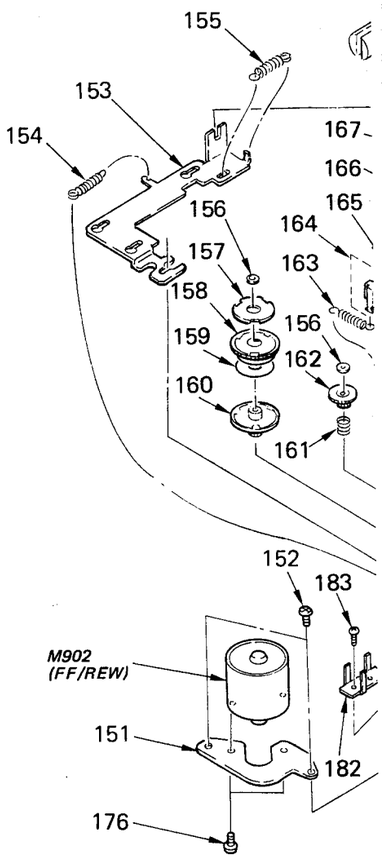
No.	Part No.	Description	Remarks
66	*3-335-201-01	HOLDER, LED	
67	7-685-107-11	SCREW +P 2X12 TYPE2	
68	7-685-134-19	SCREW +BTP 2.6X8 T	
69	7-623-507-01	LUG, 2.6	
70	7-685-532-14	SCREW +BTP 2.6X5 T	
71	4-352-844-01	PIN, LEAD, COATING	
902	*A-3056-012-A	SYSTEM CONTROL BLOC	
907	*1-618-340-11	PC BOARD, LED	
D713	8-719-123-72	DIODE SR615D	
ND701	8-719-938-24	DIODE LC-305MK	
PH901	8-719-938-25	PLI-13	
RV701	1-230-564-11	RES, VAR, SLIDE 10K	
RV702	1-230-564-11	RES, VAR, SLIDE 10K	
RV703	1-237-364-11	RES, VAR, SLIDE 100	
S709	1-570-361-11	SWITCH, SLIDE (DIGI (REVE	
SP901	1-503-630-11	SPEAKER	



(3)



(4)



:ion	Remarks
', CASSETTE	
ASSY	53
SONY	
ILIND, SW	
CASSETTE	
LOCK	
STOPPER	
EJECT	
', SPEAKER	
RELEASE	
RELEASE LEVER (A)	
INSULATING	
, PC BOARD	

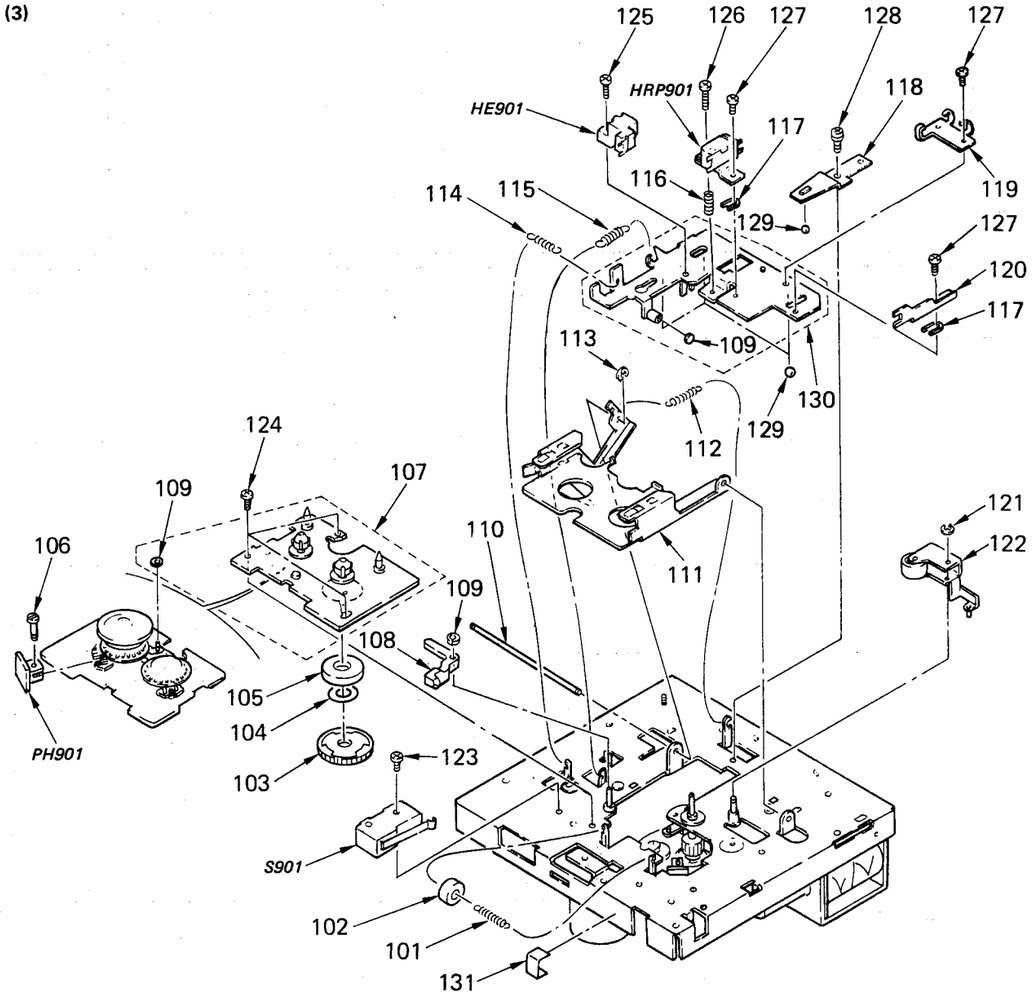
No.	Part No.	Description	Remarks
66	*3-335-201-01	HOLDER, LED	
67	7-685-107-11	SCREW +P 2X12 TYPE2 NON-SLIT	
68	7-685-134-19	SCREW +BTP 2.6X8 TYPE2 N-S	
69	7-623-507-01	LUG, 2.6	
70	7-685-532-14	SCREW +BTP 2.6X5 TYPE2 N-S	
71	4-352-844-01	PIN, LEAD, COATING	
902	*A-3056-012-A	SYSTEM CONTROL BLOCK ASSY	64,66,907
907	*1-618-340-11	PC BOARD, LED	
D713	8-719-123-72	DIODE SR615D	
ND701	8-719-938-24	DIODE LC-305MK	
PH901	8-719-938-25	PLI-13	
RV701	1-230-564-11	RES, VAR, SLIDE 10K (TONE)	
RV702	1-230-564-11	RES, VAR, SLIDE 10K (VOLUME)	
RV703	1-237-364-11	RES, VAR, SLIDE 100K (SPEED)	
S709	1-570-361-11	SWITCH, SLIDE (DIGITAL CORD) (REVERSE TIME)	
SP901	1-503-630-11	SPEAKER	

No.	Part No.	Description	Remarks
101	3-335-151-01	SPRING, TENSION	
102	*3-335-116-01	ROLLER, EMP	
103	X-3335-107-1	LIMITER (B) ASSY, FWD	
104	3-335-123-21	SPACER (M)	
105	3-335-126-01	PLATE, MAGNET	
106	3-335-104-01	SHAFT, INTERRUPTER	
107	X-3335-118-1	CHASSIS COMPLETE ASSY, SUB	
108	*3-335-167-01	LEVER, ERASING PROTECTION	
109	3-570-615-00	POLY-WASHER (DIA.1.2)	
110	*3-335-103-01	SHAFT, CASSETTE HOLDER	
111	X-3335-109-1	HOLDER COMPLETE ASSY, CASSETTE	
112	3-335-155-01	SPRING, TENSION (POWER TENSION)	
113	7-624-102-04	STOP RING 1.5, TYPE -E	
114	3-335-146-01	SPRING, TENSION	
115	3-335-114-01	SPRING, TENSION (POWER TENSION)	
116	3-569-711-00	SPRING, COMPRESSION	
117	3-578-138-01	SHIM	
	3-578-138-01	SHIM	
	3-578-138-11	SHIM	
	3-578-138-21	SHIM	

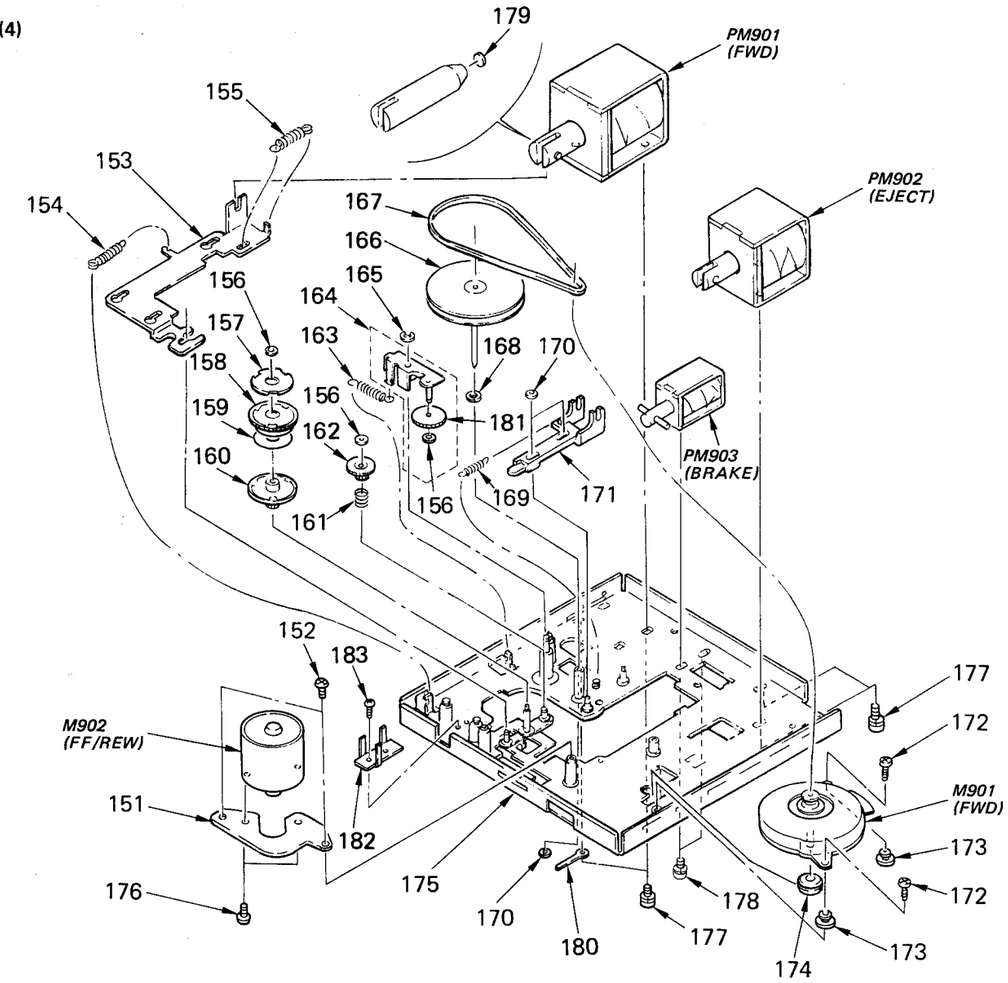
No.	Part No.	Description	Remarks
118	*3-335-111-01	SPRING	
119	3-335-109-01	SPRING	
120	*3-335-169-01	GUIDE, TAPE	
121	3-590-768-00	RING (A), E	
122	X-3335-102-1	PINCH LEVER ASSY	
123	7-627-553-98	SCREW, PRECISION +P 2X8	
124	7-627-552-28	SCREW, PRECISION +P 1.7X2	
125	7-627-552-78	SCREW, PRECISION +P 1.7X3.5	
126	7-627-552-97	SCREW, PRECISION +P 1.7X6	
127	7-627-552-18	SCREW, PRECISION +P 1.7X1.6	
128	7-628-253-90	SCREW +PS 2.6X4	
129	7-671-111-11	STEEL, BALL 1.5MM	
130	*X-3335-116-1	CHASSIS ASSY, HEAD	
131	3-831-441-11	CUSHION (B)	
HE901	1-543-324-11	HEAD, MAGNETIC (ERASE)	
HRP901	1-543-362-11	HEAD, MAGNETIC (REC/PB)	
S901	1-554-385-00	SWITCH, MICRO (ERASE PREVENTION)	

No.	Part No.	Description
151	*3-335-112-01	BRACKET (FR), MOTOR
152	3-888-156-00	SCREW (1.7X4)
153	*3-335-174-01	LEVER, FWD
154	3-335-143-01	SPRING, TENSION (POWER TENS
155	3-335-150-01	SPRING, TENSION (POWER TENS
156	3-570-615-00	POLY-WASHER (DIA.1.2)
157	3-335-158-01	PLATE (B), YOKE
158	3-335-163-01	GEAR, MAGNET
159	3-335-160-11	SPACER (FR)
160	X-3335-114-1	LIMITER (A) ASSY, FR
161	3-335-230-01	SPRING, COMPRESSION
162	3-335-121-01	GEAR, FR
163	3-335-152-01	SPRING, TENSION (POWER TEN
164	*X-3335-106-1	LEVER ASSY, FG
165	3-590-768-00	RING (A), E
166	X-3335-112-1	FLYWHEEL ASSY
167	3-335-162-01	BELT
168	3-701-436-11	WASHER, 1.6
169	3-335-144-01	SPRING, TENSION
170	3-578-242-11	WASHER

(3)



(4)



Remarks	No.	Part No.	Description	Remarks
	101	3-335-151-01	SPRING, TENSION	
	102	*3-335-116-01	ROLLER, EMP	
	103	X-3335-107-1	LIMITER (B) ASSY, FWD	
	104	3-335-123-21	SPACER (M)	
	105	3-335-126-01	PLATE, MAGNET	
	106	3-335-104-01	SHAFT, INTERRUPTER	
6,907	107	X-3335-118-1	CHASSIS COMPLETE ASSY, SUB	
	108	*3-335-167-01	LEVER, ERASING PROTECTION	
	109	3-570-615-00	POLY-WASHER (DIA.1.2)	
	110	*3-335-103-01	SHAFT, CASSETTE HOLDER	
	111	X-3335-109-1	HOLDER COMPLETE ASSY, CASSETTE	
	112	3-335-155-01	SPRING, TENSION (POWER TENSION)	
	113	7-624-102-04	STOP RING 1.5, TYPE -E	
	114	3-335-146-01	SPRING, TENSION	
	115	3-335-114-01	SPRING, TENSION (POWER TENSION)	
	116	3-569-711-00	SPRING, COMPRESSION	
	117	3-578-138-01	SHIM	
		3-578-138-01	SHIM	
		3-578-138-11	SHIM	
		3-578-138-21	SHIM	

No.	Part No.	Description	Remarks
118	*3-335-111-01	SPRING	
119	3-335-109-01	SPRING	
120	*3-335-169-01	GUIDE, TAPE	
121	3-590-768-00	RING (A), E	
122	X-3335-102-1	PINCH LEVER ASSY	
123	7-627-553-98	SCREW, PRECISION +P 2X8	
124	7-627-552-28	SCREW, PRECISION +P 1.7X2	
125	7-627-552-78	SCREW, PRECISION +P 1.7X3.5	
126	7-627-552-97	SCREW, PRECISION +P 1.7X6	
127	7-627-552-18	SCREW, PRECISION +P 1.7X1.6	
128	7-628-253-90	SCREW +PS 2.6X4	
129	7-671-111-11	STEEL, BALL 1.5MM	
130	*X-3335-116-1	CHASSIS ASSY, HEAD	
131	3-831-441-11	CUSHION (B)	
HE901	1-543-324-11	HEAD, MAGNETIC (ERASE)	
HRP901	1-543-362-11	HEAD, MAGNETIC (REC/PB)	
S901	1-554-385-00	SWITCH, MICRO (ERASE PREVENTION)	

No.	Part No.	Description	Remarks
151	*3-335-112-01	BRACKET (FR), MOTOR	
152	3-888-156-00	SCREW (1.7X4)	
153	*3-335-174-01	LEVER, FWD	
154	3-335-143-01	SPRING, TENSION (POWER TENSION)	
155	3-335-150-01	SPRING, TENSION (POWER TENSION)	
156	3-570-615-00	POLY-WASHER (DIA.1.2)	
157	3-335-158-01	PLATE (B), YOKE	
158	3-335-163-01	GEAR, MAGNET	
159	3-335-160-11	SPACER (FR)	
160	X-3335-114-1	LIMITER (A) ASSY, FR	
161	3-335-230-01	SPRING, COMPRESSION	
162	3-335-121-01	GEAR, FR	
163	3-335-152-01	SPRING, TENSION (POWER TENSION)	
164	*X-3335-106-1	LEVER ASSY, FG	
165	3-590-768-00	RING (A), E	
166	X-3335-112-1	FLYWHEEL ASSY	
167	3-335-162-01	BELT	
168	3-701-436-11	WASHER, 1.6	
169	3-335-144-01	SPRING, TENSION	
170	3-578-242-11	WASHER	

No.	Part No.	Description	Remarks
171	*3-335-166-01	LEVER (B), BRAKE	
172	3-335-207-01	SHAFT, MOTOR	
173	*3-335-208-01	CUSHION, MOTOR	
174	*3-815-122-00	BUSHING, RUBBER	
175	*X-3335-119-1	CHASSIS ASSY, MECHANICAL	
176	7-627-552-28	SCREW, PRECISION +P 1.7X2	
177	7-682-646-09	SCREW +PS 3X5	
178	7-628-253-90	SCREW +PS 2.6X4	
179	4-879-274-41	SPACER	
180	3-701-822-00	HOLDER, WIRE	
181	3-568-371-00	GEAR, FR IDLER	
182	3-335-109-01	SPRING	
183	7-627-552-18	SCREW, PRECISION +P 1.7X1.6	
910	*1-621-227-11	PC BOARD, POWER	
M901	1-541-332-11	MOTOR (NBL-32R)(FWD)	
M902	1-541-363-11	MOTOR (FF/REW)	
PM901	1-454-419-21	SOLENOID, PLUNGER (FWD)	
PM902	1-454-418-21	SOLENOID, PLUNGER (EJECT)	
PM903	1-454-420-21	SOLENOID, PLUNGER (BRAKE)	

SECTION 4
ELECTRICAL PARTS LIST

NOTE:
- Items marked " ★ " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- If there are two or more same circuitsin a set such as a stereophonic machine, only typical circuit parts may be indicated and capacitors and resistors in other same circuits may be omitted.

CAPACITORS:
MF:μF, PF:μμF.

RESISTORS
- All resistors are in ohms.
- F : nonflammable

COILS
- MMH : mH, UH : μH

SEMICONDUCTORS
In each case, U : μ, for example:
UA...: μA..., UPA...: μPA..., UPC...: μPC, UPD...: μPD...

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
901	*A-3015-511-A	MOUNTED PCB, MAIN			
902	*A-3056-012-A	SYSTEM CONTROL BLOCK ASSY			64,66,907
903	1-564-026-00	CONTACT, RECEPTACLE			
904	*1-533-189-11	HOLDER, FUSE			
905	1-535-416-00	TERMINAL			
906	⚠1-534-777-31	(UK)...CORD, POWER			
	⚠1-558-245-11	(AEP)...CORD, POWER			
907	*1-618-340-11	PC BOARD, LED			
908	*1-620-431-11	PC BOARD,PHOTO INTERRUPTER (A)			
909	1-621-225-11	PC BOARD, 12P CONNECTOR			
910	*1-621-227-11	PC BOARD, POWER			
C101	1-123-611-00	ELECT	1MF	20%	50V
C103	1-161-047-00	CERAMIC	0.0047MF	10%	25V
C104	1-162-294-31	CERAMIC	0.001MF	10%	50V
C105	1-124-236-00	ELECT	47MF	20%	16V
C106	1-123-617-00	ELECT	10MF	20%	16V
C107	1-124-245-00	ELECT	4.7MF	20%	35V
C108	1-162-294-31	CERAMIC	0.001MF	10%	50V
C109	1-124-245-00	ELECT	4.7MF	20%	35V
C110	1-162-286-31	CERAMIC	220PF	10%	50V
C111	1-161-057-00	CERAMIC	0.033MF	10%	25V
C112	1-123-611-00	ELECT	1MF	20%	50V
C113	1-130-488-00	MYLAR	0.027MF	5%	50V
C114	1-161-059-00	CERAMIC	0.047MF	10%	25V
C115	1-161-043-00	CERAMIC	0.0022MF	10%	25V
C117	1-123-611-00	ELECT	1MF	20%	50V
C118	1-123-617-00	ELECT	10MF	20%	16V
C119	1-162-282-31	CERAMIC	100PF	10%	50V
C120	1-124-224-00	ELECT	47MF	20%	6.3V
C121	1-162-290-31	CERAMIC	470PF	10%	50V
C122	1-124-444-00	ELECT	220MF	20%	10V
C123	1-124-444-00	ELECT	220MF	20%	10V
C124	1-124-444-00	ELECT	220MF	20%	10V
C125	1-123-617-00	ELECT	10MF	20%	16V
C126	1-162-294-31	CERAMIC	0.001MF	10%	50V
C127	1-162-294-31	CERAMIC	0.001MF	10%	50V
C128	1-124-638-11	ELECT	22MF	20%	6.3V
C201	1-161-057-00	CERAMIC	0.033MF	10%	25V
C202	1-161-049-00	CERAMIC	0.0068MF	10%	25V
C203	1-106-343-00	MYLAR	0.001MF	5%	200V
C204	1-161-049-00	CERAMIC	0.0068MF	10%	25V
C205	1-123-611-00	ELECT	1MF	20%	50V
C207	1-162-282-31	CERAMIC	100PF	10%	50V
C208	1-123-611-00	ELECT	1MF	20%	50V
C209	1-162-282-31	CERAMIC	100PF	10%	50V

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
C210	1-162-294-31	CERAMIC	0.001MF	10%	50V
C211	1-124-224-00	ELECT	47MF	20%	6.3V
C212	1-124-236-00	ELECT	47MF	20%	16V
C213	1-162-294-31	CERAMIC	0.001MF	10%	50V
C214	1-124-638-11	ELECT	22MF	20%	6.3V
C215	1-162-286-31	CERAMIC	220PF	10%	50V
C216	1-124-434-00	ELECT	220MF	20%	4V
C217	1-124-257-00	ELECT	2.2MF	20%	50V
C218	1-124-464-11	ELECT	0.22MF	20%	50V
C301	1-123-611-00	ELECT	1MF	20%	50V
C302	1-162-291-31	CERAMIC	560PF	10%	50V
C303	1-162-192-31	CERAMIC	2.7PF	10%	50V
C304	1-124-236-00	ELECT	47MF	20%	10V
C305	1-123-611-00	ELECT	1MF	20%	50V
C306	1-123-611-00	ELECT	1MF	20%	50V
C307	1-124-465-00	ELECT	0.47MF	20%	50V
C308	1-124-245-00	ELECT	4.7MF	20%	35V
C309	1-161-041-00	CERAMIC	0.0015MF	5%	25V
C310	1-161-058-00	CERAMIC	0.039MF	10%	25V
C311	1-161-059-00	CERAMIC	0.047MF	10%	25V
C312	1-123-622-00	ELECT	22MF	20%	16V
C313	1-124-463-00	ELECT	0.1MF	20%	50V
C401	1-124-257-00	ELECT	2.2MF	20%	50V
C402	1-162-294-31	CERAMIC	0.001MF	10%	50V
C403	1-123-617-00	ELECT	10MF	20%	16V
C404	1-125-442-11	ELECT	0.022MF		5.5V
C405	1-161-059-00	CERAMIC	0.047MF	10%	25V
C406	1-124-236-00	ELECT	47MF	20%	10V
C407	1-124-556-11	ELECT	2200MF	20%	16V
C408	1-161-059-00	CERAMIC	0.047MF	10%	25V
C409	1-161-059-00	CERAMIC	0.047MF	10%	25V
C410	1-124-236-00	ELECT	47MF	20%	16V
C411	1-161-059-00	CERAMIC	0.047MF	10%	50V
C412	1-124-618-11	ELECT	2200MF	20%	35V
C601	1-124-434-00	ELECT	220MF	20%	4V
C602	1-124-257-00	ELECT	2.2MF	20%	50V
C603	1-123-617-00	ELECT	10MF	20%	16V
C604	1-124-224-00	ELECT	47MF	20%	6.3V
C605	1-123-645-00	ELECT	33MF	20%	10V
C606	1-123-611-00	ELECT	1MF	20%	50V
C701	1-124-444-00	ELECT	220MF	20%	10V
C702	1-123-611-00	ELECT	1MF	20%	50V
C703	1-123-647-00	ELECT	47MF	20%	6.3V
C704	1-162-211-31	CERAMIC	33PF	5%	50V
C705	1-162-211-31	CERAMIC	33PF	5%	50V

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
C706	1-161-023-00	CERAMIC	0.068MF	10%	25V
C707	1-123-617-00	ELECT	10MF	20%	16V
C708	1-161-063-00	CERAMIC	0.1MF	10%	25V
C751	1-161-051-00	CERAMIC	0.01MF	10%	50V
C752	1-161-051-00	CERAMIC	0.01MF	10%	50V
C753	1-161-051-00	CERAMIC	0.01MF	10%	50V
C754	1-161-051-00	CERAMIC	0.01MF	10%	50V
C755	1-161-039-00	CERAMIC	0.001MF	10%	50V
C756	1-161-051-00	CERAMIC	0.01MF	10%	50V
C757	1-161-051-00	CERAMIC	0.01MF	10%	50V
C758	1-161-051-00	CERAMIC	0.01MF	10%	50V
C759	1-161-051-00	CERAMIC	0.01MF	10%	50V
CNJ101*1-562-147-11		HOUSING, CONNECTOR 2P			
CNJ102*1-562-149-11		HOUSING, CONNECTOR 4P			
CNJ103*1-562-147-11		HOUSING, CONNECTOR 2P			
CNJ104*1-562-151-11		HOUSING, CONNECTOR 6P			
CNJ105*1-562-147-11		HOUSING, CONNECTOR 2P			
CNJ405*1-562-151-11		HOUSING, CONNECTOR 6P			
CNJ406*1-562-150-21		HOUSING, CONNECTOR 5P			
CNJ407*1-562-150-11		HOUSING, CONNECTOR 5P			
CNJ408*1-562-153-11		HOUSING, CONNECTOR 8P			
CNJ409*1-562-149-11		HOUSING, CONNECTOR 4P			
CNJ601 1-562-149-11		HOUSING, CONNECTOR 4P			
CNJ701*1-562-149-11		(CONTROL BOARD)...HOUSING, CONNECTOR 4P			
CNJ701*1-561-533-00		(12P CONNECTOR BOARD) ...SOCKET, CONNECTOR 12P			
CNJ702*1-562-153-11		HOUSING, CONNECTOR 8P			
CNJ703*1-562-150-11		HOUSING, CONNECTOR 5P			
CNJ704*1-562-151-11		HOUSING, CONNECTOR 6P			
CNJ705*1-562-151-11		HOUSING, CONNECTOR 6P			
CNJ707*1-562-150-21		HOUSING, CONNECTOR 5P			
CNJ708*1-562-149-11		HOUSING, CONNECTOR 4P			
CNJ709*1-562-150-11		HOUSING, CONNECTOR 5P			
CNJ712*1-562-151-11		HOUSING, CONNECTOR 6P			
CNJ711*1-562-151-11		HOUSING, CONNECTOR 6P			
CNP101*1-564-001-11		PIN, CONNECTOR 2P			
CNP102*1-564-003-00		PIN, CONNECTOR 4P			
CNP103*1-564-001-11		PIN, CONNECTOR 2P			
CNP104*1-564-005-00		PIN, CONNECTOR 6P			
CNP105*1-564-001-11		PIN, CONNECTOR 2P			
CNP401*1-564-001-11		PIN, CONNECTOR 2P			
CNP402*1-564-001-11		PIN, CONNECTOR 2P			
CNP403*1-564-001-11		PIN, CONNECTOR 2P			
CNP404*1-508-742-00		PIN, CONNECTOR 3P			
CNP405*1-564-005-00		PIN, CONNECTOR 6P			
CNP406*1-564-004-00		PIN, CONNECTOR 5P			
CNP407*1-564-004-00		PIN, CONNECTOR 5P			

ELECTRICAL PARTS

Ref.No.	Part No.	Description
CNP408*1-564-007-00		PIN, CONNECTOR 8P
CNP409*1-564-003-00		PIN, CONNECTOR 4P
CNP601*1-564-003-00		PIN, CONNECTOR 4P
CNP701*1-564-003-00		PIN, CONNECTOR 4P
CNP702*1-564-007-00		PIN, CONNECTOR 8P
CNP703*1-564-004-00		PIN, CONNECTOR 5P
CNP704*1-564-005-00		PIN, CONNECTOR 6P
CNP705*1-564-005-00		PIN, CONNECTOR 6P
CNP706*1-564-001-11		PIN, CONNECTOR 2P
CNP707*1-564-004-00		PIN, CONNECTOR 5P
CNP708*1-564-003-00		PIN, CONNECTOR 4P
CNP709*1-564-004-00		PIN, CONNECTOR 5P
CNP711*1-564-016-00		PIN, CONNECTOR 6P
CNP712*1-564-016-00		PIN, CONNECTOR 6P
CNP602W*1-564-001-11		PIN, CONNECTOR 2P
D101	8-719-911-19	DIODE 1SS119
D201	8-719-200-02	DIODE 10E2
D202	8-719-911-19	DIODE 1SS119
D203	8-719-911-19	DIODE 1SS119
D204	8-719-911-19	DIODE 1SS119
D205	8-719-022-21	DIODE 1T22A
D206	8-719-911-19	DIODE 1SS119
D207	8-719-911-19	DIODE 1SS119
D208	8-719-911-19	DIODE 1SS119
D301	8-719-911-19	DIODE 1SS119
D302	8-719-911-19	DIODE 1SS119
D303	8-719-911-19	DIODE 1SS119
D401	8-719-911-19	DIODE 1SS119
D402	8-719-110-53	DIODE RD2OES-B2
D403	8-719-200-02	DIODE 10E2
D404	8-719-911-19	DIODE 1SS119
D405	8-719-200-02	DIODE 10E2
D406	8-719-200-02	DIODE 10E2
D407	8-719-200-02	DIODE 10E2
D408	8-719-200-02	DIODE 10E2
D409	⚠8-719-200-02	DIODE 10E2
D410	⚠8-719-200-02	DIODE 10E2
D411	⚠8-719-200-02	DIODE 10E2
D412	⚠8-719-200-02	DIODE 10E2
D413	8-719-911-19	DIODE 1SS119
D601	8-719-123-72	DIODE SR615D
D701	8-719-911-19	DIODE 1SS119
D702	8-719-911-19	DIODE 1SS119
D703	8-719-911-19	DIODE 1SS119
D704	8-719-911-19	DIODE 1SS119

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

ELECTRICAL PARTS

Ref.No.	Part No.	Description
D705	8-719-911-19	DIODE 1SS119
D707	8-719-911-19	DIODE 1SS119
D708	8-719-911-19	DIODE 1SS119
D709	8-719-911-19	DIODE 1SS119
D710	8-719-911-19	DIODE 1SS119
D712	8-719-911-19	DIODE 1SS119
D713	8-719-123-72	DIODE SR615D
F401 ⚠	1-532-215-00	FUSE, TIME-LAG T0.8A
F402 ⚠	1-532-215-00	FUSE, TIME-LAG T0.8A
HE901	1-543-324-11	HEAD, MAGNETIC (ERASE)
HRP901	1-543-362-11	HEAD, MAGNETIC (REC/PB)
IC101	8-759-145-58	IC UPC4558C
IC102	8-759-952-60	IC BA526
IC201	8-759-745-61	IC NJM4560D-D
IC301	8-759-745-61	IC NJM4560D-D
IC302	8-759-140-01	IC UPD4001BC
IC401	8-759-700-52	IC NJM7806A
IC402	8-759-170-12	IC UPC78M12H
IC601	8-759-140-66	IC UPD4066BC
IC602	8-759-801-19	IC LA5524
IC701	8-759-940-92	IC MB88521-168M
IC703	8-759-929-11	IC BA618
IC704	8-759-203-95	IC TD62104P
J101	1-507-948-21	JACK
M901	1-541-332-11	MOTOR (NBL-32R)(FWD)
M902	1-541-363-11	MOTOR (FF/REW)
ND701	8-719-938-24	DIODE LC-305MK
PH901	8-719-938-25	PLI-13
PM901	1-454-419-21	SOLENOID, PLUNGER (FWD)
PM902	1-454-418-21	SOLENOID, PLUNGER (EJECT)
PM903	1-454-420-21	SOLENOID, PLUNGER (BRAKE)
Q101	8-729-334-58	TRANSISTOR 2SC1345
Q102	8-729-811-24	TRANSISTOR 2SD1012
Q103	8-729-900-36	TRANSISTOR DTC124ES
Q104	8-729-600-27	TRANSISTOR 2SC634SP
Q105	8-729-811-24	TRANSISTOR 2SD1012
Q201	8-729-900-80	TRANSISTOR DTC114ES
Q202	8-729-801-93	TRANSISTOR 2SD1387
Q203	8-729-801-93	TRANSISTOR 2SD1387
Q204	8-729-334-58	TRANSISTOR 2SC1345
Q205	8-729-811-24	TRANSISTOR 2SD1012
Q206	8-729-600-27	TRANSISTOR 2SC634SP
Q302	8-729-600-27	TRANSISTOR 2SC634SP

ELECTRICAL PARTS

Ref.No.	Part No.	Description
Q303	8-729-900-80	TRANSISTOR DTC114ES
Q304	8-729-600-27	TRANSISTOR 2SC634SP
Q305	8-729-900-80	TRANSISTOR DTC114ES
Q306	8-729-900-36	TRANSISTOR DTC124ES
Q401	8-729-900-63	TRANSISTOR DTA124ES
Q402	8-729-900-61	TRANSISTOR DTA114ES
Q403	8-729-900-61	TRANSISTOR DTA114ES
Q404	8-729-802-34	TRANSISTOR 2SD1388
Q405	8-729-802-34	TRANSISTOR 2SD1388
Q406	8-729-802-34	TRANSISTOR 2SD1388
Q408	8-729-900-63	TRANSISTOR DTA124ES
Q409	8-729-900-36	TRANSISTOR DTC124ES
Q410	8-729-802-34	TRANSISTOR 2SD1388
Q601	8-729-801-83	TRANSISTOR 2SB1013
Q602	8-729-600-27	TRANSISTOR 2SC634SP
Q603	8-729-900-36	TRANSISTOR DTC124ES
Q604	8-729-600-27	TRANSISTOR 2SC634SP
Q605	8-729-900-36	TRANSISTOR DTC124ES
Q606	8-729-900-36	TRANSISTOR DTC124ES
Q608	8-729-600-27	TRANSISTOR 2SC634SP
Q609	8-729-801-83	TRANSISTOR 2SB1013
Q610	8-729-801-83	TRANSISTOR 2SB1013
Q611	8-729-801-93	TRANSISTOR 2SD1387
Q612	8-729-801-93	TRANSISTOR 2SD1387
Q613	8-729-900-63	TRANSISTOR DTA124ES
Q614	8-729-600-27	TRANSISTOR 2SC634SP
Q615	8-729-600-27	TRANSISTOR 2SC634SP
Q702	8-729-900-63	TRANSISTOR DTA124ES
Q703	8-729-900-80	TRANSISTOR DTC114ES
Q704	8-729-600-27	TRANSISTOR 2SC634SP
Q705	8-729-600-27	TRANSISTOR 2SC634SP
R101	1-249-437-11	CARBON 47K 5% 1/6W
R102	1-215-483-00	CARBON 390K 5% 1/6W
R103	1-249-416-11	CARBON 820 5% 1/6W
R104	1-249-429-11	CARBON 10K 5% 1/6W
R105	1-249-410-11	CARBON 270 5% 1/6W
R107	1-249-429-11	CARBON 10K 5% 1/6W
R108	1-249-437-11	CARBON 47K 5% 1/6W
R109	1-249-429-11	CARBON 10K 5% 1/6W
R110	1-249-413-11	CARBON 470 5% 1/6W
R111	1-249-425-11	CARBON 4.7K 5% 1/6W
R112	1-249-438-11	CARBON 56K 5% 1/6W
R113	1-249-439-11	CARBON 68K 5% 1/6W
R114	1-249-425-11	CARBON 4.7K 5% 1/6W
R115	1-249-441-11	CARBON 100K 5% 1/6W
R116	1-249-441-11	CARBON 100K 5% 1/6W

ELECTRICAL PARTS

Ref.No.	Part No.	Description
R117	1-249-425-11	CARBON 4.7K 5% 1/6W
R118	1-215-471-00	CARBON 120K 5% 1/6W
R119	1-215-493-00	CARBON 1M 5% 1/6W
R120	1-249-437-11	CARBON 47K 5% 1/6W
R121	1-249-423-11	CARBON 3.3K 5% 1/6W
R122	1-249-417-11	CARBON 1K 5% 1/6W
R123	1-215-493-00	CARBON 1M 5% 1/6W
R124	1-249-405-11	CARBON 100 5% 1/6W
R125	1-249-411-11	CARBON 330 5% 1/6W
R126	1-247-785-00	CARBON 12 5% 1/6W
R127	1-249-399-11	CARBON 33 5% 1/6W
R128	1-249-429-11	CARBON 10K 5% 1/6W
R129	1-249-433-11	CARBON 22K 5% 1/6W
R201	1-249-430-11	CARBON 12K 5% 1/6W
R203	1-249-431-11	CARBON 15K 5% 1/6W
R204	1-249-429-11	CARBON 10K 5% 1/6W
R205	1-249-429-11	CARBON 10K 5% 1/6W
R206	1-249-427-11	CARBON 6.8K 5% 1/6W
R207	1-249-421-11	CARBON 2.2K 5% 1/6W
R208	1-249-417-11	CARBON 1K 5% 1/6W
R209	1-249-413-11	CARBON 470 5% 1/6W
R210	1-249-419-11	CARBON 1.5K 5% 1/6W
R211	1-249-415-11	CARBON 680 5% 1/6W
R212	1-249-429-11	CARBON 10K 5% 1/6W
R214	1-249-437-11	CARBON 47K 5% 1/6W
R215	1-215-483-00	CARBON 390K 5% 1/6W
R216	1-249-429-11	CARBON 10K 5% 1/6W
R217	1-249-410-11	CARBON 270 5% 1/6W
R218	1-249-417-11	CARBON 1K 5% 1/6W
R219	1-249-437-11	CARBON 47K 5% 1/6W
R220	1-249-429-11	CARBON 10K 5% 1/6W
R221	1-249-429-11	CARBON 10K 5% 1/6W
R222	1-249-410-11	CARBON 270 5% 1/6W
R223	1-249-438-11	CARBON 56K 5% 1/6W
R224	1-249-438-11	CARBON 56K 5% 1/6W
R225	1-249-413-11	CARBON 470 5% 1/6W
R226	1-249-417-11	CARBON 1K 5% 1/6W
R227	1-215-481-00	CARBON 330K 5% 1/6W
R228	1-249-429-11	CARBON 10K 5% 1/6W
R229	1-249-437-11	CARBON 47K 5% 1/6W
R230	1-249-415-11	CARBON 680 5% 1/6W
R231	1-249-417-11	CARBON 1K 5% 1/6W
R232	1-215-493-00	CARBON 1M 5% 1/6W
R233	1-249-437-11	CARBON 47K 5% 1/6W
R234	1-249-429-11	CARBON 10K 5% 1/6W
R301	1-249-421-11	CARBON 2.2K 5% 1/6W

ELECTRICAL PARTS

Ref.No.	Part No.	Description
R302	1-249-429-11	CARBON 10K 5% 1/6W
R303	1-249-433-11	CARBON 22K 5% 1/6W
R304	1-249-433-11	CARBON 22K 5% 1/6W
R305	1-249-441-11	CARBON 100K 5% 1/6W
R306	1-215-493-00	CARBON 1M 5% 1/6W
R307	1-249-440-11	CARBON 82K 5% 1/6W
R308	1-249-437-11	CARBON 47K 5% 1/6W
R309	1-249-423-11	CARBON 3.3K 5% 1/6W
R310	1-215-489-00	CARBON 680K 5% 1/6W
R311	1-249-441-11	CARBON 100K 5% 1/6W
R312	1-249-441-11	CARBON 100K 5% 1/6W
R313	1-249-423-11	CARBON 3.3K 5% 1/6W
R314	1-247-895-00	CARBON 470K 5% 1/6W
R315	1-249-405-11	CARBON 100 5% 1/6W
R316	1-249-429-11	CARBON 10K 5% 1/6W
R317	1-249-427-11	CARBON 6.8K 5% 1/6W
R318	1-249-428-11	CARBON 8.2K 5% 1/6W
R319	1-247-894-00	CARBON 430K 5% 1/6W
R320	1-215-493-00	CARBON 1M 5% 1/6W
R321	1-247-898-00	CARBON 620K 5% 1/6W
R322	1-215-493-00	CARBON 1M 5% 1/6W
R323	1-215-493-00	CARBON 1M 5% 1/6W
R324	1-215-493-00	CARBON 1M 5% 1/6W
R401	1-249-429-11	CARBON 10K 5% 1/6W
R402	1-249-417-11	CARBON 1K 5% 1/6W
R403	1-249-429-11	CARBON 10K 5% 1/6W
R404	1-249-413-11	CARBON 470 5% 1/6W
R405	1-249-429-11	CARBON 10K 5% 1/6W
R406	1-249-413-11	CARBON 470 5% 1/6W
R408	1-249-421-11	CARBON 2.2K 5% 1/6W
R601	1-249-421-11	CARBON 2.2K 5% 1/6W
R602	1-249-431-11	CARBON 15K 5% 1/6W
R603	1-249-430-11	CARBON 12K 5% 1/6W
R604	1-249-429-11	CARBON 10K 5% 1/6W
R605	1-249-420-11	CARBON 1.8K 5% 1/6W
R606	1-249-433-11	CARBON 22K 5% 1/6W
R607	1-215-447-00	METAL 12K 1% 1/6W
R608	1-215-449-00	METAL 15K 1% 1/6W
R609	1-249-441-11	CARBON 100K 5% 1/6W
R610	1-249-441-11	CARBON 100K 5% 1/6W
R611	1-249-441-11	CARBON 100K 5% 1/6W
R612	1-249-441-11	CARBON 100K 5% 1/6W
R613	1-249-429-11	CARBON 10K 5% 1/6W
R614	1-249-429-11	CARBON 10K 5% 1/6W
R615	1-249-433-11	CARBON 22K 5% 1/6W
R616	1-249-433-11	CARBON 22K 5% 1/6W

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
R617	1-249-413-11	CARBON	470	5%	1/6W
R618	1-247-838-00	CARBON	2K	5%	1/6W
R619	1-249-429-11	CARBON	10K	5%	1/6W
R620	1-249-430-11	CARBON	12K	5%	1/6W
R621	1-249-429-11	CARBON	10K	5%	1/6W
R622	1-249-413-11	CARBON	470	5%	1/6W
R623	1-249-413-11	CARBON	470	5%	1/6W
R624	1-249-415-11	CARBON	680	5%	1/6W
R625	1-249-415-11	CARBON	680	5%	1/6W
R626	1-249-425-11	CARBON	4.7K	5%	1/6W
R627	1-249-433-11	CARBON	22K	5%	1/6W
R628	1-249-433-11	CARBON	22K	5%	1/6W
R701	1-249-417-11	CARBON	1K	5%	1/6W
R702	1-249-417-11	CARBON	1K	5%	1/6W
R703	1-249-417-11	CARBON	1K	5%	1/6W
R704	1-249-417-11	CARBON	1K	5%	1/6W
R705	1-249-417-11	CARBON	1K	5%	1/6W
R706	1-249-417-11	CARBON	1K	5%	1/6W
R707	1-249-429-11	CARBON	10K	5%	1/6W
R708	1-249-429-11	CARBON	10K	5%	1/6W
R709	1-249-429-11	CARBON	10K	5%	1/6W
R710	1-249-441-11	CARBON	100K	5%	1/6W
R711	1-249-441-11	CARBON	100K	5%	1/6W
R712	1-249-441-11	CARBON	100K	5%	1/6W
R713	1-249-437-11	CARBON	47K	5%	1/6W
R714	1-249-437-11	CARBON	47K	5%	1/6W
R715	1-249-420-11	CARBON	1.8K	5%	1/6W
R716	1-249-424-11	CARBON	3.9K	5%	1/6W
R717	1-249-429-11	CARBON	10K	5%	1/6W
R718	1-249-408-11	CARBON	180	5%	1/6W
R719	1-215-477-00	CARBON	220K	5%	1/6W
R720	1-249-431-11	CARBON	15K	5%	1/6W
R721	1-249-429-11	CARBON	10K	5%	1/6W
R722	1-249-415-11	CARBON	680	5%	1/6W
R723	1-249-437-11	CARBON	47K	5%	1/6W
R725	1-249-437-11	CARBON	47K	5%	1/6W
R727	1-247-805-00	CARBON	82	5%	1/6W
R728	1-247-805-00	CARBON	82	5%	1/6W
R729	1-247-805-00	CARBON	82	5%	1/6W
R730	1-247-805-00	CARBON	82	5%	1/6W
R731	1-247-805-00	CARBON	82	5%	1/6W
R732	1-247-805-00	CARBON	82	5%	1/6W
R733	1-247-805-00	CARBON	82	5%	1/6W
R740	1-249-437-11	CARBON	47K	5%	1/6W
R741	1-249-437-11	CARBON	47K	5%	1/6W
R742	1-249-437-11	CARBON	47K	5%	1/6W

ELECTRICAL PARTS

Ref.No.	Part No.	Description
RV601	1-226-711-00	RES, ADJ, SOLID 22K
RV602	1-230-523-11	RES, ADJ, METAL GLAZE 10K
RV603	1-230-523-11	RES, ADJ, METAL GLAZE 10K
RV604	1-226-711-00	RES, ADJ, SOLID 22K
RV701	1-230-564-11	RES, VAR, SLIDE 10K (TONE)
RV702	1-230-564-11	RES, VAR, SLIDE 10K (VOLUME)
RV703	1-237-364-11	RES, VAR, SLIDE 100K (SPEED)
RY201	1-515-519-00	RELAY
S101	1-552-334-00	SWITCH, BAND CHANGER (SPEAKER)
S201	1-552-334-00	SWITCH, BAND CHANGER (TAPE SPEED)
S202	1-552-334-00	SWITCH, BAND CHANGER (SPEED)
S301	1-516-777-XX	SLIDE SWITCH (STANDBY)
S302	1-552-334-00	SWITCH, BAND CHANGER (AUTO-STOP)
S702	1-554-303-21	SWITCH, KEY BOARD (STOP
S703	1-554-303-21	SWITCH, KEY BOARD (ERASE)
S704	1-554-303-21	SWITCH, KEY BOARD (RESET)
S705	1-554-303-21	SWITCH, KEY BOARD (LISTEN)
S706	1-554-303-21	SWITCH, KEY BOARD (REW
S707	1-554-303-21	SWITCH, KEY BOARD (FF
S708	1-554-303-21	SWITCH, KEY BOARD (EJECT
S709	1-570-361-11	SWITCH, SLIDE (DIGITAL CORD) (REVERSE TIME)
S901	1-554-385-00	SWITCH, MICRO (ERASE PREVENTION)
SP901	1-503-630-11	SPEAKER
T201	1-433-251-00	TRANSFORMER, BIAS OSCILLATOR
T901 ⚠	1-448-871-11	TRANSFORMER, POWER
THP601	1-806-367-11	THERMISTOR (POSITIVE)
THP602	1-806-367-11	THERMISTOR (POSITIVE)
TP201	*1-560-666-00	PIN, CONNECTOR 3P
X701	1-567-143-00	OSCILLATOR, CERAMIC

ACCESSORY & PACKING MATERIAL

Part No.	Description
3-335-212-01	BAG, PROTECTION
3-335-213-01	CUSHION (LEFT)
3-335-214-01	CUSHION (RIGHT)
3-335-236-01	INDIVIDUAL CARTON
3-701-626-00	BAG, POLYETHYLENE
3-769-129-11	MANUAL, INSTRUCTION (ENGLISH,FRENCH,GERMAN)
8-891-136-02	MC-30BM(SE)
X-3323-511-1	CRADLE (A) ASSY
X-3323-512-1	CRADLE (B) ASSY

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

TROUBLESHOOTING

Should a problem occur, conduct the following simple tests to determine whether or not servicing is required. If the problem persists after you have conducted these tests, consult the nearest Sony Information Products dealer.

Symptom	Cause and/or remedy
The unit does not operate.	• Connect the AC power cord to a wall outlet. • Set the ON-STANDBY switch to ON.
The hand control unit does not function.	• Check the connection.
No sound from the built-in speaker.	• Set the SPEAKER selector to BUILT-IN. • Slide the VOLUME control upwards. • An earphone is plugged in.
The tape speed is too fast or too slow.	• Set the TAPE SPEED selector correctly. • Adjust the SPEED control when the SPEED switch is set to ON.
The tape stops in the rewind or fast forward mode and the alarm sounds.	• The entire tape has been wound onto the right or left reel. • The AUTO-STOP switch is turned on and a tape with an index signal recorded is used.
Sound drop-outs, loss of high frequency sounds, or excessive noise.	• The heads are dirty. See "Maintenance".
The ERASE button does not function.	• The tape is completely rewound. • The cassette tabs have been removed.
Erasing is unsatisfactory.	• The erase head is dirty. See "Maintenance".

9-952-721-11

Sony Corporation
Audio Group

English
87D0519-1
Printed in Japan
© 1987. 4